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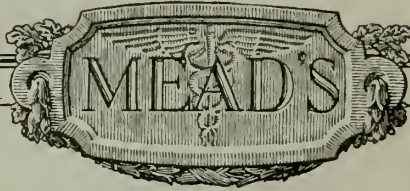
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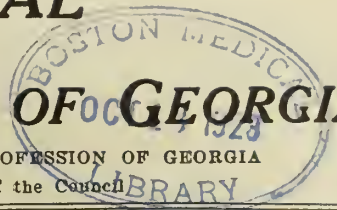


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Original Articles

THE TREATMENT OF SYPHILIS IN CHILDREN*

Description of Intra-Peritoneal Injection of Neo-Arsphenamine and Mercurosal

Joseph Yampolsky, M.D., and George F. Klugh, M.D.

Atlanta, Ga.

The treatment of syphilis in children has been well systematized and, no matter what method one uses, the drugs of choice being usually either the mercurials or arsenicals or both. For the past five years we have employed the following routine in the treatment of congenital syphilis:

I. **Prophylactic Treatment.** A routine Wassermann test on every pregnant woman is taken and treatment is instituted in adults if the test is positive. Next a routine Wassermann on the cord of every newborn baby; a Wassermann on the baby itself; a microscopic and macroscopic examination of the placenta and a liver puncture on the liver of the child for a dark field examination for spirochetes. If the baby is found to be syphilitic, we carry out the following treatment:

Each patient is given eight injections of neo-arsphenamine and mercury, alternating every other week. The neo-arsphenamine is given one-tenth of a gram for every fifteen pounds of baby weight, diluted in 5 c.c. of sterile distilled water at room temperature. If one finds difficulty in getting into the vein, the neo-arsphenamine may be given intramuscularly into the buttock, half of dose in each hip. Hot towels are to be applied to the buttock for one-half an hour after the treatment is given.

Mercury is usually given in the form of mercury salicylate suspended in olive oil by the intramuscular route in the buttocks.

Our dosage has been one-half a grain for every thirty pounds of body weight. If veins are available mercurosal is then given intravenously, diluted with distilled water, and in same dosage. The dilution is about one grain to one and a half c.c. of distilled water at room temperature. A course consists of sixteen injections (eight of each). The patient is then allowed to rest for thirty days. A Wassermann test is taken. If the test is positive a course of sixteen injections is immediately given. When the test is negative the patient is allowed to wait sixty more days and then a course of sixteen injections is given. Only two courses are allowed in one year. A lumbar puncture is done as a routine on every patient for diagnosis of symptomatic neuro-syphilis. Following this treatment the patient is kept under observation for several years to come.

In our practice we have come in contact mostly with new born patients or patients in the first year of life. We have found great difficulty in getting into these little patients' veins. We did not dare treat them through the longitudinal sinus. The intramuscular treatment had to be discontinued for some time on account of sore buttocks.

For that reason two years ago one of us (Y) decided to try out a new method, which might be less painful to the patient, more and faster absorbing than by the intramuscular route and at the same time not injurious to the patient. Since intra-peritoneal injections have become a part of our

*Read before the Medical Association of Georgia, May 13, 1925.

therapeutic armamentarium in pediatrics we decided to try out on rabbits intraperitoneal injections of neoarsphenamine and mercuriosal.

Certainly with the use of antitoxin, transfusion of citrated blood, normal saline and glucose intraperitoneally, we felt that it was worth our while to perform these experiments on rabbits.

Our purpose was to prove that these medicines are absorbed through the peritoneal cavity and that adhesions or peritonitis do not occur. Our dosages occasionally were larger than given in adults, as we did not care if the rabbits died, so long as the above facts could be proven.

The dosage used was one-tenth of a gram neo-arsphenamine diluted in two c.c. of distilled water and one-half grain of mercuriosal diluted in 20 min. of distilled water.

A number of rabbits were given intraperitoneally ten injections of neoarsphenamine. Another lot was given alternate injections of neoarsphenamine and mercuriosal at weekly intervals. The rabbits in each series averaged five pounds each. The solutions were of the strength mentioned above, except for the fact that the doses were occasionally bigger than used in human beings. At first the animals were given one-tenth of a gram of neoarsphenamine and one-half of a grain of mercuriosal. These doses proved too large and then the doses were reduced to five hundredths of a gram of neoarsphenamine and three-tenths of a grain of mercuriosal. Even these doses were larger than used in human beings. Those receiving the larger doses showed toxic symptoms almost immediately. With neoarsphenamine alone the animals were able to take one and one-half the amount given children per pound of body weight. The series living through ten alternating doses of mercuriosal and neoarsphenamine lived through the ten injections and died about a week later of chronic poisoning. The others remained alive. On autopsy they showed no signs of adhesion or peritonitis, showing that the drug was absorbed without producing any pathology in the peritoneal cavity. We then decided to try this treatment on children whom we considered needed immediate results.

Baby W. Father and mother both syphilitic. One of twins—the other died of syphilis. Patient given twelve alternating injections of neoarsphenamine and mercuriosal intraperitoneally. Patient laughing and smiling immediately after treatment. No colic, no pain, no toxic results. Previous to this treatment suffered very much when given intramuscular treatment. Patient now looks well, no signs of congenital lues. Wassermann still positive.

Baby K. This patient was treated by Dr. M. Hines Roberts privately. Patient was in such physical condition that Dr. Roberts thought that any treatment might be tried on a case of this kind. Patient is now robust and healthy, shows no signs of congenital lues and his Wassermann is negative.

At no time did these two patients show any after effects and the mothers seemed to be well satisfied with the progress of their children.

These cases were then referred to Dr. Landham for x-ray examination. The following is Dr. Landham's report on the gastro-intestinal tract of both patients:

"Fluoroscopic examination of the abdomen following the administration of an opaque meal shows structures of the lower gastro-intestinal tract to be in normal position and movable on palpation. No evidence of adhesion was observed.

"X-ray examination of the gastro-intestinal tract following the administration of an opaque meal shows no evidence of adhesions or abnormal position of any of the structures of the gastro-intestinal tract.

"In view of these findings and the experiment on rabbits that you have done and the results of which I am familiar, I consider your plan of intra-peritoneal therapy of decided value."

Summary

1. Several rabbits were given intraperitoneally doses of neo-arsphenamine one and one-half larger than for human beings. These rabbits are still alive.

2. Several rabbits were given alternating doses of neoarsphenamine and mercuriosal. These doses were larger than given in human beings. These rabbits died of chronic poisoning, but showed no sign of adhesions or peritonitis.

3. Two luetic children were treated intraperitoneally with alternating doses of neoarsphenamine and mercuriosal. These patients are alive and healthy looking. One has a negative and the other a positive Wassermann.

Conclusions

1. Absorption from the peritoneal cavity is rapid.

2. Alternating doses of neo-arsphenamine and mercurosal caused chronic poisoning in the doses given in rabbits and we believe that it is best to give these drugs separately.

3. Neither neo-arsphenamine nor mercurosal caused peritonitis or adhesions when injected in the peritoneal cavity of rabbits.

4. No bad effect physically or by x-ray and fluoroscopic examination was shown in the human beings with this method of therapy.

5. We believe that in young children, where immediate treatment is necessary and where it is difficult to treat these children intravenously, that the intraperitoneal therapy of syphilitic children is both safe and life saving.

Discussion on Paper of Dr. Joseph Yampolsky

DR. WILLIAM L. FUNKHOUSER, Atlanta, Ga.: The surgeons have a tendency to criticize the pediatricians for their failure to have sufficient respect for the peritoneal cavity, but I think the use of citrated blood, and the use of mercurochrome as it has been used in the treatment of pneumonia, has demonstrated the fact that the peritoneum will stand a good deal of medication without any harm. The veins of these infants are so small that it is difficult to develop a technic without failure. Those of you who have used this intravenous method will probably wish you had not used it when you get a case of inflammation outside the vein. If treatment can be used intraperitoneally it will take away the curse of the treatment of syphilis in these young children.

DR. LEWIS D. HOPPE, Jr., Atlanta, Ga.: I wish to congratulate Dr. Yampolsky and Dr. Klugh on their excellent paper and demonstration.

Dr. Funkhouser mentioned the use of mercurochrome intraperitoneally in the treatment of pneumonia. In this regard I would like to say that Dr. Freeman, Dr. Goldsmith and I have given a series of thirty-four patients a total of sixty intraperitoneal injections. This in a series of 148 cases of pneumonia treated to date with mercurochrome, and so far we have had only one bad result.

I wish to differ with Dr. Yampolsky on one point, and that is that if you enter the intestine you will do harm. One of us had the misfortune to transfix the intestine and

the child died, of a colon bacillus peritonitis.

I think the paper is very timely and that this offers an excellent means of treating these babies with such small veins that it is difficult to get into them.

DR. GEORGE F. KLUGH, Atlanta, Ga.: In my opinion it is a very rare occurrence to transfix the bowel when using this method of treatment. I believe that in the syphilitic infant the risk of peritonitis is infinitesimal compared with the risk from the ravages of the spirochetes themselves. These children need immediate treatment and even if there is a small amount of risk we should take that risk rather than depend upon the slower methods, such as mercury, and allow the disease process to damage the liver, the kidneys and nervous system. I think that far outweighs the risk one runs with this method. I have given a number of injections of different sorts with rabbits and have never had such an accident occur. It is possible to transfix an intestine, of course, but even in the case Dr. Hoppe cited where the child had a colon bacillus peritonitis, it would be doubtful whether that was due to the treatment. The greater possibility would be that the patient may have had a colon bacillus appendicitis or a rupture of the intestine from some pathological process within the the intestinal tract.

DR. J. P. BOWDOIN, Adairsville, Ga.: I have watched the work of these men quite closely for several years. Syphilis is one of the most common of all our diseases and it is neglected. Our physicians, as a rule, do not recognize hereditary syphilis as they should. Of course, treatment of the children is important but it is more important to treat the mother before the child is born. I think it is advisable to make a Wassermann test in every pregnant woman, regardless, and treat them accordingly. I think we should congratulate these gentlemen on the work you have seen demonstrated. It is important and I believe we are on the eve of seeing something develop along this line which will be of service to the man who has not the opportunity to give the intravenous treatment. In fact, it has developed in sulpharsphemine.

I wish to compliment Dr. Yampolsky on the work he and his assistant have done in Atlanta for I know it has been of great service to the city.

DR. WILLIAM H. HAILEY, Atlanta, Ga.: I wish to add to the congratulations. I have followed Dr. Yampolsky's work for five years and think he is doing the greatest humanitarian work of any physician in Atlanta today. Most of these patients fall in the charity class and he has given freely of his time, which means something. He has

probably neglected his practice to give these poor children what they need. Of course he does not expect to cure them from one point of view, but he expects to cure them clinically. Fordyce says we cannot cure them completely and he is probably right. Dr. Yampolsky's work is original and we would have to pay a good deal to go to New York, Chicago or any other large city to see it. I heartily congratulate these men on their work.

DR. JOSEPH YAMPOLSKY, Atlanta, Ga., (closing): The time is coming when you will have to treat syphilis in children whether you want to or not. Many of you put these syphilitic children aside, but if you consider how many syphilitic children there are in Georgia you will realize that we must

find the best methods and the quickest way to treat them. In many instances we are not able to get into the small veins and they need treatment immediately. By using this method we save their lives. I am sure one of the patients I showed you today would not have been alive had she not received this intraperitoneal treatment. We know that the peritoneal cavity is a great absorber. It is necessary to do the work as fast as one can and I think in this way we will lessen the number of syphilitic children, for every syphilitic child means the propagation of more syphilitic children in the years to come. If we cure them even serologically, if not clinically, we have accomplished something we may feel proud of.

I thank the gentlemen for their words of appreciation of our efforts.

PHYSIOLOGICAL PIGMENTATION OF THE NEW-BORN*

M. Hines Roberts, M.D.

Atlanta, Ga.

Probably no subject in the entire field of pediatrics has been more widely investigated and discussed than that of increased pigmentation occurring in the new-born. Physiological jaundice, the common clinical evidence of this condition, has been observed in a considerable number of all new-borns, the actual incidence as quoted by clinicians varying from forty to eighty percent. It is probable that the latter figure more nearly approaches the true state of affairs.

Formerly observers confined their studies to the one symptom, jaundice, and advanced many theories in the effort to establish an explanation for this phenomenon. Von Reuss in his book on the new born goes rather exhaustively into the various theories advanced, all of which are familiar to you. He concludes by stating that the very multiplicity of explanations leaves us with none entirely satisfactory, and hence the question remains one still open for settlement.

More recently the problem has been attacked from a different angle, the occurrence of jaundice in certain new borns being taken simply as a symptom incident to a general physiological process common to all new-borns. Studies of the blood as carried out by Schiff and Faerber¹, Lucas² and others found almost constantly present in the era of new-borns increased pigmentation which they agree is due to bilirubin.

Accompanying this and seemingly a factor of etiological importance is the destruction of red cells which undoubtedly occurs during this period. "This," to quote Schiff and Faerber, "indicates a physiological preparedness for jaundice in all new-borns, but jaundice does not develop until some other unknown factor intervenes."

Since bilirubin arises from hemoglobin with the elimination of iron, it is natural to suppose that an excess of iron would be found stored away in some tissue of the body or excreta, regardless of whether the formation of bilirubin occurred in the liver alone or chiefly in the blood stream. Williamson³ recently presented evidence to show that the iron content of the placenta varied directly with the extent of bilirubinemia, and that there is a very definite relationship between icterus neonatorum and placental iron content,—the greater the placental iron content the greater the degree of clinical jaundice. This condition he attributes to a destruction in the placenta of red blood cells, fetal or maternal or both, and hence he concludes that the bilirubinemia and jaundice of the new born must be purely hemolytic in origin. The non-icteric infants all of whom nevertheless have a certain degree of bilirubinemia, are without jaundice because their placental iron content is below the threshold necessary for its appearance.

*Read before the Medical Association of Georgia. May 13, 1925.

Observation similar to those made by Williamson were recorded sometime previously by Schick⁴, who states that the increased iron content of the placenta is due entirely to the destruction of the maternal red cells, which occurs in order to furnish iron to the fetal erythrocytes. The transformation of the resulting hematoporphyrin after being freed from the iron molecule, he believes, is begun by the cells of the placenta and probably completed by the fetal liver.

Wagner⁵ brings out the interesting observation that in the test tube the action of placental extract on erythrocytes fails to bring about the formation of biliary pigment. He believes, however, that the iron content of the placenta bears a very definite relation to icterus neonatorum. To substantiate this statement he points out the fact that the iron content of the premature placenta is much higher than that of the full term child. In harmony with this is the observation commonly made that the premature is much more prone to icterus than is the full term infant. He concludes that both liver and placenta are essential to jaundice of the new-born.

The findings of these more recent workers seem to point to a process essentially hematogenous in origin rather than hepatogenous, though the liver as a secondary etiological factor can not be excluded. Certainly, however, the theories of an obstructive or infectious jaundice can be definitely ruled out, and indeed any theory which claims liver dysfunction as the primary factor seems untenable. Further, any theory which is dependent upon some condition arising after birth is essentially erroneous, though it is possible that such a condition may hasten or complete a process already begun in intrauterine life. This latter point was first stated by Yllpo⁶, who, by his exhaustive study several years ago, produced renewed interest in this subject. In contrast to the more recent work, he believed that the important factor of biliary pigment formation resulting in jaundice after birth was liver dysfunction.

Through the courtesy of the Obstetrical Service of Grady Hospital, Emory Division, I have had the privilege of carrying out some studies on the new-born. This work in the beginning was directed chiefly toward

the problem of intracranial hemorrhage resulting from injury or disease. I soon became interested in the distribution of pigment in the new born, however, and the data submitted will deal in the main with this phase of the observations made. They are offered with a full knowledge of their incompleteness, and in no sense assume the determination of the etiological factor, but simply contribute additional findings of interest which may possibly aid in solving this problem.

It has been my experience that not infrequently the spinal fluid of a new-born presenting symptoms of cerebral irritation and suspected of hemorrhage would display a very definite xanthochromia. This pigment, it was assumed, arose from the destruction of red cells freed in the fluid as the result of injury or hemorrhagic disease. The fact that this condition occurred as early as twenty-four or forty-eight hours after birth made its explanation on the theory given above rather difficult. My findings show clearly that this assumption is not correct.

A total of four hundred and twenty-three (423) new-borns has been studied. A spinal puncture was done on each patient during the first twenty-four hours of life. In case jaundice occurred the puncture was often repeated, and on quite a number of the babies the fluid was again withdrawn on the date of discharge, which was usually the seventh or eighth day of life. In conjunction with the observations carried out on the spinal fluid the serum of these babies has been studied, especially for its pigment content.

The needle employed for the lumbar puncture is one cut especially for this work,—one inch long, twenty-gauge, with a stylet similar to that in the larger needle used for adult work. The tissues are of such delicate structure it is essential that the needle be as small as possible; for most babies three quarters of an inch would give sufficient length, but occasionally one is encountered requiring the entire shaft of an inch needle.

During the early days of this work to obviate the possibility of hemorrhage from trauma at the time of puncture, it was my custom to introduce the needle but once, and

failing to obtain fluid I dispensed with any further manipulation and excluded that case from the series. Later I became convinced that this was an unnecessary safeguard and found that moderate manipulation apparently produced no more traumatic hemorrhage than did the single thrust of the needle.

In only two cases was I convinced that the pressure was so low as to give that time honored alibi, the "dry tap." I failed many times on the first attempt to obtain fluid, but invariably subsequent trials proved successful except in the two cases of very small prematures mentioned above. Punctures on three successive days failed to obtain fluid, although the fluid in the needle could be seen to move back and forth with respiration. Negative pressure was of no avail.

In withdrawing the blood from the longitudinal sinus a sharp, short bevelled, twenty gauge needle one-half inch in length was used. The posterior angle of the fontanel in midline is best for this puncture, as here the sinus is more easily located. Occasionally the sinus is transfixed in spite of all precautions, however I have never seen any ill effects from this accident.

As the observations progressed one very striking feature of the fluids impressed me,—I was never able to obtain a fluid which was absolutely colorless as is normal in the adult and older child. All showed some degree of pigmentation, varying from a pale straw to a deep yellow. In no case was there any evidence of jaundice during this first twenty-four hour period in which the primary puncture was done. No relation existed between the character of the labor or the condition of the child at birth as the result of delivery and the intensity of the pigment. The size and general physical development of the child, however, has a definite bearing on the degree of xanthoehemia. All prematures, small full term infants and twins invariably showed a marked pigmentation, while as a general rule the large full term babies gave a fluid which contained relatively little pigment. This parallels the observation mentioned above that prematures and small full term infants rarely if ever escape jaundice, which is usually present to an intense degree.

The theory advanced by De Luea⁷ that

jaundice of the new born is due to the presence of intraeranian hemorrhage with subsequent absorption and pigment formation is not borne out by these observations. Intraeranian hemorrhage was found to exist in sixty of the total series, or fourteen and one-tenth (14.1) percent, however increased pigmentation invariably occurred in both serum and spinal fluid, regardless of the existence of blood in the latter. The subsequent development of jaundice in a certain number of cases, which undoubtedly is a continuation of the process noted in the body fluids of all new-borns, bears no relation to hemorrhage occurring at birth in the central nervous system. It must, however, be added that the intensity of pigmentation in the spinal fluid is very definitely effected by the presence of blood. A puncture forty-eight or seventy-two hours following the initial tap which revealed hemorrhage exhibits a clear fluid markedly more pigmented than when first examined. Since a proportional increase in pigment of the blood serum is not noted this observation suggests the possibility of some local process in the canal or meninges concerned in the formation of pigment, similar to that observed commonly about bruises of the skin and subcutaneous tissues. To repeat however this type of pigmentation of the spinal fluid is not the one universally present, and certainly is not physiological.

In attempting to determine the nature of the pigment present in the spinal fluid it seemed that a study of the serum of these patients might throw some light on the problem. My findings confirm the observations frequently made that the serum of new-borns invariably contains bilirubin.

Thinking that probably the pigment in the spinal fluid was of a similar nature the various tests for bilirubin were carried out, but no positive results were obtained unless jaundice had supervened, in which case the concentration of pigment was much increased.

Since urobilin, a reduction product of bilirubin, is very closely allied to the latter the various tests for that substance were carried out on serum and spinal fluid. Schlesinger's Test, the commonest of these, depends upon the appearance of a green fluorescence on the addition of the salts of certain heavy

metals. This test is confusing when employed with weak solutions in which other pigments may be present and cloud the reaction. For this reason a preliminary report was made stating the belief that the pigment present was urobilin. The following more refined test has revealed clearly the error of this former report.

By saturating the spinal fluid with sodium sulphate and heating the pigment is thrown out of solution and may be collected in a concentrated form in the precipitate, which when oxidized with acid-alcohol in a water bath gives the beautiful green reaction of bilirubin, or biliverdin. On testing the filtrate, which is colorless, for urobilin the apparently positive reaction is no longer obtained.

It was attempted to determine the duration of the persistence of bilirubin in the spinal fluid, but nothing definite could be learned as the babies were usually discharged from the hospital on the eighth or ninth days of life at which time the pigment still persisted with little if any change unless jaundice had intervened, in which case the xanthochromia was much intensified, indeed so concentrated that the ordinary tests for bile pigment gave positive reactions. Lumbar puncture on a few of these patients was done in the out patient department four weeks after birth at which time the fluid was entirely colorless.

Summary

1. A study of the spinal fluid has been made on four hundred and twenty-three newborn negro babies.
2. All of these fluids exhibited a definite xanthochromia.
3. Bilirubin is constantly present in the spinal fluid of new borns.
4. The pigmentation persists in the spinal fluid until the ninth day. It has cleared by the fourth week.
5. The intensity of pigmentation is markedly increased if jaundice occurs.
6. The intensity of pigmentation is closely related to the physical development of the infant.
7. Icterus neonatorum is not dependent upon the presence of blood in the spinal fluid.

Conclusions

1. Xanthochromia of the spinal fluid in

new borns is a physiological condition and in no way related to hemorrhage or to other pathology in the central nervous system.

2. Its presence is additional evidence of a general blood destruction beginning in the fetus and continuing for a time after birth.

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Discussion on Paper of Dr. M. Hines Roberts

DR. E. C. THIRASH, Atlanta, Ga.: I wish to say in reference to this work of Dr. Roberts that it is one of the most carefully worked out, and one of the most scientific pieces of research work that has been done by a member of this Association for quite a long while.

I rose to put forth a theory which I have conceived as the cause of this pigment, since I have known Dr. Roberts was doing the work. It was my purpose to talk to him about it before he read the paper but I did not have an opportunity to do so. All of us who have an understanding of the fetal circulation know that the red cells get their oxygen from the mother's blood. The post-natal children get their oxygen from the vesicles of the lung. We can readily see that it takes a different type of cell, a cell with a definite affinity for oxygen, to take up oxygen from the blood than the cell which obtains oxygen from the air. Every cell when a child is born has been accustomed to get its oxygen from the blood, and is not accustomed to get it from the air. The child begins to build up new cells quite rapidly, and the new cells are adapted to get the oxygen from the air, and the old cells die. There are great numbers of cells in the newborn child which will die and set free the hemoglobin in the skin. This seems to me the most plausible explanation of the pigment in the new-born children.

DR. W. A. MULHERIN, Augusta, Ga.: I wish to congratulate Dr. Roberts on his exceptionally scientific paper. There are scientific points as well as practical points that should be touched upon. Dr. Roberts really upsets what is thought today in pediatrics to be well established by such authorities as Holt and Howland. They will tell you that if a child with jaundice dies and a necropsy is held all the internal organs will

be found deeply jaundiced, but the spinal fluid never. Dr. Roberts' work shows that we do find bilirubin there, which is very interesting.

I think the work of the Japanese scientist, Yllpo, might be mentioned in this connection and it would probably substantiate Dr. Thrash's theory. This Jap found that at nine months gestation and at birth the baby's blood contained about three times the amount of bile the mother's blood contained. At twenty days of age the baby's blood contained some 20% more. Dr. Thrash's theory is in keeping with the destination of the blood and the bile pigment rapid increase.

The presence of xanthochromia in the baby's blood is very interesting and I think Dr. Roberts should continue the work. The bile in the baby's blood when it reaches a certain point of saturation, I think about 125 mgs. per 100 c.c. of blood serum, produces the jaundice, and the jaundice is just a manifestation of a certain degree of saturation in the blood. If a child is jaundiced the mother always wants to know if the condition is dangerous. This can be determined rather easily. How? If the stools are colored yellow or green the condition is not significant of danger. If there is color in the stools the jaundice will not amount to anything, for there is no obstructive jaundice.

There are three chief causes of jaundice in the infant: first, an obstruction of the bile ducts which does not allow the bile to come down. If the stools have a good color you can reassure the mother, and let the condition alone. Do not give the child castor oil or calomel to cure the jaundice. It is physiological and should be let alone.

DR. HENRY W. DOSTER, Rocky Ford, Ga.: There is one type of jaundice that I want to speak of. I was called to see a baby about seventy-two hours old, who was jaundiced, had a high temperature, and died within a few minutes. I think the death was due to infection at the time the child was born. Every once in a while we see the pernicious cases of jaundice, where the child has severe jaundice, a high temperature, and succumbs within a short time.

DR. M. HINES ROBERTS, Atlanta, Ga., (closing): Just a word about what Dr. Thrash said regarding the etiology. We know that blood destruction occurs very definitely after birth. I believe, however, that we have to look for the cause further back than that. As we know, a still birth—say a seven months fetus—shows a very intense pigmentation of all fluids, much more so than in the full term babies in which we did the taps a few hours after birth. Certainly the process is begun before birth, but

undoubtedly something occurs after birth which brings this on to a more marked degree.

I think that death in the last case referred to was probably due to something other than the jaundice.

CEREBRAL MALARIA

Otto Tiemann Brosius, Barranquilla, Colombia (Journal A. M. A., Sept. 13, 1924), reports the case of a boy, aged 10, who when first seen was in a semiconscious state with convulsive seizures, screaming frantically at spasmodic intervals. Symptoms suggestive of tetanus were present and an enlarged spleen. A blood smear stained by Hasting's method, showed the presence of both the malignant and benign tertian parasites. An intravenous injection of 6 grains (0.4 gm.) of quinin dihydrochlorid was given immediately and repeated twice that day, after four-hour intervals. The following day, three more intravenous injections of quinin dihydrochlorid, of 6 grains (0.4 gm.) each, were again administered at six-hour intervals. On the third day, the quinin was administered in the same way as on the preceding two days. By the morning of the fourth day, the patient had regained complete consciousness. Quinin dihydrochlorid was now given by mouth three times a day, in 6 grain (0.4 gm.) doses, for six days more. Then 5 grains (0.3 gm.) was given three times a day for ten days, after which, for ten days more, 5 grains (0.3 gm.) was given mornings and evenings. Thereafter a tonic was administered. The case is illustrative of the fact that blood smears should be examined in almost every case in tropical lands, and that cerebral malaria should not be too quickly eliminated in a difficult differential diagnosis.

SMALLPOX IN TWINS AT BIRTH.

James A. Martin, Lumberton, N. C., (Journal A. M. A., July 25, 1925), reports the case of a woman who, while in the second stage of a very severe attack of smallpox, gave birth to twins. Both babies were born in the first, or papular stage, of smallpox. The mother entirely recovered. The babies are now in the last stage of desiccation, and look as if they will make an uneventful recovery.

PYURIA IN INFANTS AND CHILDREN***W. W. Anderson, M.D.****Atlanta, Ga.**

It has been about thirty years since Holt first recognized and described pyelitis in infants and children. Since that time, naturally, the incidence of this disease has increased, since to suspect any condition is one of the surest ways of arriving at a diagnosis.

Although various treatments have been instituted, the most popular being alkali, urinary antiseptics, such as urotropin, and autogenous vaccines, the duration and relapses of this condition are perhaps about the same that they were some thirty years ago, and continue to harrass the attending physician and the family.

The treatment that I wish to bring before you for your consideration and discussion has given such uniform results in a small series of private patients that I am inclined to look upon this condition more as a primary infection of the bladder rather than the pelves and kidneys in a large percent of children, since such good results have been obtained by irrigating the bladder with a weak silver nitrate solution. Needless to say, irrigating the bladder for an infant who has a calculus, renal tuberculosis, a malformation, an abscess of the kidney, or any other condition than a simple inflammatory process would be useless. These conditions are very infrequent compared with the usual form of so-called pyelocystitis, in which the colon bacillus in pure culture is obtained. Of the series of cases included in this report, of those cultured, with one exception, (in which the organism was not demonstrated), the colon bacillus grew in pure culture from catheterized specimens of urine.

Of a thousand consecutive children in private practice, twenty had pus in their urine. Undoubtedly, mild cases of pyelitis escape notice, so that the chances of the occurrence of this condition is perhaps even greater than this. The ages of these children range from 4 months to 11 years, the usual age being about 2 years. On account of the difficulty in collecting urine in infants, urinalyses are perhaps not made often enough, and it is again entirely possible that

if more urinalyses were done the condition might be found more frequently.

Of these 20 children with demonstrable pus in their urine, three were boys, and 17 were girls. One of the girls had gonorrhea, and one of the boys, a little over 5 years old, a stone in his ureter. The remaining 18, 2 boys and 16 girls, had the usual textbook pictures of so-called pyelocystitis. None of these children have died.

One of these little girls (No. 1) first showed pus in her urine at two and a half years of age. This cleared up for the time being under alkalies alternating with urotropin. She was again seen 4 years later with 3 plus albumin and red blood cells in her urine, and 5 years later, following an attack of acute influenza, with 3 plus albumin and red blood cells. It would be hazardous to speculate on the significance of pus in her urine with just a faint trace of albumin at two and a half years of age.

Another girl (No. 3) was first seen at 6 years of age with a mild pyelitis. Five years later, at 11 years of age the pyelitis again recurred.

A third little girl (No. 8) one and a half years old was under treatment almost constantly for over 3 months.

A fourth child (No. 11) seen at 2 years of age had pus in her urine on 4 different occasions, over periods of several weeks for 2 years.

This is the usual story with these children. The symptoms, fever, urinary symptoms, including gross blood in the urine, suppression or frequent urination, painful urination, etc., usually subside. But careful urinalyses will show either pus or the colon bacillus. It is sometimes difficult to convince the families of the significance of continuing treatment, as was the case of the little girl mentioned above who later had albumin and red blood cells in her urine. A few of these children have been seen at irregular intervals 4 (Nos. 6, 7, 14, 17) living out of town, 1 (No. 5) referred to free clinic, 1 (No. 5) seen at the request of another physician, and 1 or 2 (Nos. 6, 7, 10) seen on one occasion only. Of 7 children

*Read before the Medical Association of Georgia, May 13, 1925.

(Nos. 1, 3, 11, 13, 14, 17, 18) who have been under more or less constant supervision, and whose bladders have not been irrigated, all have had recurrences. Of 4 of these chil-

dren (Nos. 15, 16, 19, 20) whose bladders have been irrigated with silver nitrate solution, none have had relapses.

Child No.	Age Years	Date Onset	Treatment	
1	2½	8-24-1920	Alkali	Numerous WBC 1920, not regular for treatment. Pale, anemic. Jan., 1924, March, 1925, 3 plus albumin and RBC.
2	3	8-24-1920	Alkali Urotropin	Painful urination, numerous WBC. Cried whenever rectal thermometer introduced.
3	6	3-19-1921	Alkali Urotropin	Fever and pus in urine only symptoms. Recurrence April, 1925.
4	6	1-27-1921	Surgery	Attacks abdom. pain since 3 yrs. old. Many RBC & WBC. Calculus removed from right ureter. Well since 1921.
5	11	2-11-1921	Alkali Urotropin	Single visit. Numerous WBC, non-specific vulvo-vaginitis. Referred to a free clinic.
6	4	3-5-1921	Alkali	Macroscopic blood, few WBC, majority RBC. Out of town patient. Said to be well to-day.
7	1	3-17-1921	Alkali	Frequent urination, few WBC. Seen only one time.
8	1½	6-6-1922	Alkali Urotropin	Fever, frequent painful urination, many WBC, duration well over 3 mos., relapse 8 mos. later.
9	1¼	4-10-1922		Gram neg intracellular diplococci.
10	8	7-14-1922	Alkali	Single attack. Seen only once. Apparently well
11	2	11-9-1922	Alkali Urotropin	Convulsions, fever, frequent urination. Several relapses—Jan. 5, 1923, Apr. 4, 1923, Nov. 1924.
12	1½	2-19-1923	Alkali Urotropin	Single visit. Seen at request another physician.
13	1	5-4-1923	Alkali Urotropin Vaccine	Fever, frequent urination, numerous WBC. Colon bacillus on culture. Duration 1 month, relapse 6-8 months later.
14	1¼	5-18-1923	Alkali Urotropin Vaccine	Out of town. Seen twice with recurrences.
15	2½	5-31-1923	Irrigations Urotropin	Fever, numerous WBC, continued 1 month until Aug. 27, then cleared up entirely after 4 bladder irrigations. Well to-day.
16	¼	2-19-1924	Alkali Urotropin Vaccine Irrigations	High fever, convulsions, at 4 mos. of age, colon bacillus, improved but frequent exacerbations until Aug. 26, 1924. Bladder irrigated 3 times cleared up, well to-day.
17	2½	3-24-1924	Alkali Urotropin Rest Diet	Few RBC. Many WBC. Later albumin on 2 occasions. Out of town.
18	½	8-7-1924	Alkali Urotropin	3 attacks before 1 year of age. Irrigations refused.
19	1¼	9-1-1924	Irrigations	Pus in urine did not decrease until bladder irrigated. Well today.
20	¼	5-12-1924	Irrigations	Colon bacillus. Irrigated 7 times. No further pus in urine.

No originality is claimed for this particular treatment. It is based on treatments that gynecologists use in adult conditions, and has been used in infants and reported. With usual surgical asepsis the procedure has proven safe in each instance without any untoward results. The apparatus used is a small funnel attached to a small soft rubber catheter, smaller, but similar to the usual apparatus we use in giving an infant an enema. The size of the catheter varies from a No. 10 to a No. 13 depending on the age and size of the infant. In small infants

it has been necessary to connect the funnel and catheter with a second short rubber tubing, two inches long, and a drawn out glass tube, on account of the small size of the smaller catheters. One or two assistants are required to hold the child in position, depending chiefly on the child's disposition, since most of these children submit to the procedure with only the mother holding them in place. The child is placed on his back, the legs flexed on his abdomen, the external buttocks, genitals, and inner sides of the legs scrubbed clean. A solution of

two percent cocaine is then applied to the external opening of the urethra, and a large piece of cotton wrung out in a one to one thousand bichloride of mercury solution placed over the site and left in place until the child is catheterized. The operator's hands are then scrubbed and sterilized in the usual way. The amount of silver nitrate solution instilled into the bladder, or the length of time it remains in the bladder seems to be of little importance. Usually 1 or 2 ounces can be instilled with ease, the funnel never being elevated over 5 or 6 inches. There is more or less straining after the instillation, usually enough to expel about one-half of the original amount before the catheter is withdrawn. Occasionally the entire amount is retained for a variable period, 15 minutes to 1 hour.

Of all the cases cited in this paper we have purposely omitted discussion of the more recent cases on account of the tendency of recurrences in this condition. Of the four children thus treated, all have remained well over periods of not less than 8 or 9 months. Equally as good results are being obtained at the present time, but I do not think it fair to report cases as well unless quite a while has relapsed, even 8 or 9 months being hardly a long enough period. Unfortunately, on account of the attendant expense to the patient, all of the cases have not been cultured, and since no ease of pyelitis should be called cured unless not only the signs and symptoms have cleared up, but pus is absent from the urine and one or more cultures of catheterized specimens of urine are free from the causative organism. But they have all remained free from symptoms and frequent examinations of their urine have failed to show any pus cells in increased amount.

A little girl 2 and a half years old (No. 15) in July, 1923, had the usual signs of pyelocystitis, with innumerable pus cells in an uncentrifuged specimen. From July 31 to August 27 she was given the usual treatment of alkalies alternating with urotropin every few days, and autogenous vaccine, with pus cells remaining in her urine, although her clinical symptoms had moderately abated. Late in August, 1923, her bladder was irrigated with a weak silver nitrate

solution on 4 occasions at intervals of 2 to 4 days. After each irrigation the pus rapidly decreased, being entirely absent at the 4th irrigation. Frequent examinations of her urine since that time have failed to show pus, and she has remained well clinically until the present time, almost 2 years later.

A little girl (No. 17) 4 months of age, extremely ill, with fever of 105, semi-comatose was seen in February, 1924, with innumerable pus cells in her urine. She was given the usual treatment of alkalies alternating with urotropin for a period of several weeks, during which time her fever and acute symptoms had somewhat subsided, but the urine continued to show many pus cells. An autogenous vaccine was made (colon bacillus in pure culture) and given her in large increasing doses, after which the pus in her urine decreased somewhat. 6 months after the onset, in August, 1924, her bladder was irrigated with a weak silver nitrate solution for the first time. After 2 irrigations of a one to one thousand solution her urine remained clear for a period of one month. She was irrigated a third time, since which time, 8 months ago, after frequent repeated examinations of her urine, no further pus has been found.

A boy (No. 19), 20 months old, was seen on September 1, 1924. Two or three days prior to this time he had had fever, and he had strained and complained of pain on urination. He had been a well child with the exception of mastoiditis, and was operated on for this condition in March, 1923. On physical examination the only findings were moderately enlarged tonsils, with enlarged cervical glands. A specimen of his urine was requested, but the child could not void at the office on this visit. His genito-urinary tract was X-rayed (Dr. J. J. Clark) for evidence of calculi, and he was sent home with an alkali to take by mouth. The following morning a specimen of his urine showed innumerable pus cells. For the next 13 days he was given the usual treatment of alkalies alternating with urotropin in an acid medium, at intervals of a few days. During this time there was no decrease in a number of pus cells in his urine. Fourteen days after his first visit he was catheterized and his bladder irrigated

with 2 ounces of a one to one thousand solution of silver nitrate. A tuberculin skin test at this time later on proved to be strongly positive. The catheterized specimen of urine was studied. It showed no growth, the only organism found was one or two intracellular diplococci, which could not be demonstrated later. Several stains for B tuberculosis proved negative. Guinea pigs inoculated with the urine were killed and autopsied about the sixth week and showed no signs of tuberculosis, so that the causative organism was not demonstrated in his case. Two days after the first irrigation he was again irrigated with a one to one thousand silver nitrate solution, and 2 days following this with a 2 per cent solution. After the third irrigation his urine showed no pus, and his clinical symptoms had cleared up. His urine was examined at frequent intervals for the next 2 months and remained clear. Today, 9 months later, he is still in good health and free from any clinical signs of cystitis.

A little girl 5 months old (No. 20) was seen May 12, 1924, with the clinical signs of pyelocystitis. Her mother did not send in a specimen of urine until nearly one month later, August 7, 1924, during which time she was on symptomatic treatment, and her signs and symptoms had persisted. She came back to town on that date and an examination of her urine showed innumerable pus cells. Her bladder was irrigated with a one to one thousand solution of silver nitrate daily for 4 days, during which time the pus decreased in amount tremendously, and later she received 2 more irrigations, 2 days following the last, and 6 days following the last. Since that time, 1 year ago, after weekly examinations of her urine, no further pus has been found, and she has been entirely well symptomatically.

Conclusions

Those children, with a colon bacillus infection, whose bladders have been irrigated with a weak silver nitrate solution, have gotten well much more quickly than other patients. So far, none of them have relapsed.

Discussion on Paper of Dr. W. W. Anderson

DR. W. A. MILLERIN, Augusta, Ga.: These are very practical subjects with which the general practitioner should be familiar, and that is my excuse for getting up again.

I think pyuria is one of the most common causes for the hidden fevers that the practitioner will meet. Those who are doing work with women and children have to treat these hidden fevers, and very frequently upon examining the urine they will find pus, and the blood will show an increased white cell count, showing directly what the cause of the trouble is.

There is another practical point in connection with this. I do not think we are warranted in making a diagnosis of pyelitis unless the vulva of the child has been bathed before the examination is made. I think errors in diagnosis are frequent unless this precautionary measure is taken.

It is interesting to note that little girls in the proportion of 9 to 1 per cent will develop pyelitis compared to boys. I do not know how they become infected but it seems that the genitalia are infected in some way.

It is claimed that there are three ways to get infection of the urinary tract. The descending, getting into the blood stream; the transparietal, through the lymph stream; and the ascending route. We encounter some very stubborn cases and Dr. Anderson's results have been excellent. I think he should continue the work and see if he will be able to continue the brilliant results.

Of course, the treatment is plenty of water, alkaline treatment, which gives good results. We have recently been trying out acid sodium phosphate and urotropin, two or three grains a day, and it does seem as though the results are better. I will certainly try washing out the bladder in some of these resistant cases.

DR. R. L. MILLER, Waynesboro, Ga.: I did not quite understand Dr. Anderson in reference to washing the bladder to get rid of the pyelitis. I do not see how the nitrate of silver will get up in the pelvis of the kidney and eradicate the pyelitis. If we have an acid urine we have to use an alkali and if we have an alkaline urine we have to use the acid. I do not think he intended to convey the impression that if pyelitis is present the silver nitrate irrigation of the bladder only will eliminate it.

DR. WILLIAM J. CRANSTON, Augusta, Ga.: There were one or two points in Dr. Anderson's paper which I think we should bear constantly in mind. One is that we too frequently overlook the diagnosis and think of malaria in these cases of pyelitis. As we

know, occasionally malaria will come on in children without a chill. I have seen pyelitis come on in a similar manner and the patients would be treated for months for malaria before it was discovered that pyuria was causing the temperature and at times the chills. Not only will it do that, but in some instances it will cause rather marked vago-tonic symptoms, with blanching of the skin of the face and extremities, with very cold feet and hands and chilling of the entire surface of the body.

Another point I think we should stress is that we do not always remove the pyelitis when we treat it locally even with the alkalis, or with the silver nitrate irrigations. It has been my experience that these cases are often due to focal infection, especially in the tonsils. I recall a case of pyuria that I have treated recently, in which the tonsils would flare up repeatedly and I was never able to cure the pyelitis until after the tonsils were removed. I think this is very important.

I wonder if the mastoid case Dr. Anderson reported, with the subsequent pyelitis, was not a pyelitis resulting from the mastoid infection?

DR. W. W. ANDERSON, Atlanta, Ga., (closing): I realize that this is a small series of cases. They have been studied in each instance, however, and the reason I talked about the mastoid case so much in detail was because the organism was not demonstrated. I do not know the role of the mastoiditis, but the child has remained well of pyelitis.

Of course, in the case of trouble in the pelvis of the kidney, irrigating the bladder would be useless, but there comes a time when the child remains apparently well but still passes pus in the urine. It is a question as to whether the kidney has the ability to take care of the pus and the infection remains in the bladder for a longer time. It might be that the infection travels up the lymphatics to the kidneys again. This method thus far has worked out much better than the old treatment of pyelitis. Undoubtedly cases will occur which this treatment will not cure. Perhaps, as the gynecologists have suggested, it will be necessary to dilate the ureter. This is a tedious process in children and if the infection will clear up by irrigating the bladder I think the procedure is well worth while.

ORTHOPEDIC TREATMENT OF ARTHRITIS

Theodore Toepel, M.D.

Atlanta, Georgia

It is to be doubted if any other disease calls for a wider appreciation of the principles on which the mechanics of the body depend than does advanced arthritis. For this reason, the internist may be unable, until he has acquired large experience, to determine where the effects of an active inflammatory process stop and the effects of its sequelae begin.

After the internist has completed the search for focal infection, including the teeth, tonsils, ears, frontal sinuses, alimentary tract, genito-urinary tract and reproductive organs and has given due consideration to thyroid disturbances and the bee sting; has employed vaccines and removed focal infections and used all the medicinal agents, has applied physio-therapeutic measures, controlled the diet and prescribed hygienic conduct, and has met with failures, then it is time for him to prepare for sequelae.

Some of these sequelae constitute some of the greatest difficulties in treatment. It is

often very difficult to determine whether pain and limitation of function are due to underlying arthritis or to the contracture and deformities which it produces.

It is fair to say that orthopedic help should be enlisted in the treatment of nearly all cases of advanced arthritis, in which there is important deformity. In many cases of arthritis, complications are introduced by various errors in the statics of the body, such as flat foot and other malpositions. The symptoms to which flat foot may give rise in the foot, knee, or even hip, so clearly resemble those of an active arthritis, that it is sometimes difficult or impossible to draw the line between them.

Orthopedic assistance is of the highest importance in dealing with advanced arthritis in the feet. The rigid, flat pronated condition which these assume cannot be met by the internist alone, and, when extreme, necessitates such measures as breaking adhesions under anesthesia, the application of a cast,

the subsequent fitting of proper shoes and arch supports, and finally the re-education of the foot to depend upon its own muscles and to strengthen them by use.

It is common knowledge that the arthritic assumes faulty posture even if previously he never had it. The longer the duration of arthritis, the greater the probability that some other structure or organs are at fault.

The measures chiefly depended upon in this connection are directed toward the maintenance of corrected posture, even in bed. The patient is made to lie in moderate hyperextension, and is made to carry out exercises in deep breathing. Care is taken to avoid sagging and pull of the abdominal viscera, by frequent change of position.

In extreme cases a body cast may be required until relaxation in better posture has taken place; and to achieve correct posture in the upright position, braces may be required, not only for the shoulders and back, but even for the abdomen, in the form of antero-posterior pads. Such measures are

not necessarily specific for arthritis, but they do have a bearing upon many conditions of secondary invalidism.

The chronic arthritic eventually becomes chronic in respect to other forms of invalidism as well, and a glance through any ward where such subjects are gathered, is sufficient to illustrate the unnecessary handicap under which they generally suffer, when allowed to sink in crooked and collapsed positions in wheeled chairs or even in bed. There is no room for doubt that existing ill health must be aggravated by the almost continuous assumption of postures which crowd intestines upon the diaphragm, hinder descent of the latter, hinder the consequent normal tonic effect of its pressure upon the abdominal contents, and prevent thoracic expansion and full respiration. It is not sufficient merely to avoid these evils; developmental exercises must be instituted when possible, and pushed as far as circumstances will allow.

SALIENT POINTS IN TREATMENT OF SYPHILIS*

W. P. Jordan, M.D.

Columbus, Ga.

The following points are observations and answers to questions that bother me most and those asked me from time to time:

One of the most fascinating things in medicine is to have the opportunity of watching the combat between the spirochetes and the four drugs that are used in the fight, viz: arsenic, mercury, bismuth and iodine, with the tearing down or the building up of the patient's resistance as the case may be. Your mental capacity is often strained to its limit to know just which to throw into the breach. Do your very best to bring about a realization of the seriousness to the patient. Do not minimize the disease; it is far better to exaggerate carefully. If you have told your patient it is no worse than gonorrhea you have stated a flagrant falsehood and your patient is to be pitied. Humanitarian and economic reasons both insist that you do your best. To refer all syphilitics to competent syphilologists is not reason-

able, economical, nor even possible. "So, much rests still with the general practitioner and poorly equipped clinics to do the best they can and stoically bear their grave responsibilities", (Allen). Unless a physician feels himself competent to carry out all the necessary procedures in the treatment of any given case, according to Fordyce, he should not attempt to treat it at all.

As you know a chancreoid appears in less than fourteen days and a chancre from ten days to two months; caution: there is no reason why both should not be present. Typical chancres are still typical but atypical ones are more common and just as atypical. Looks do not mean much to me. Be wary of a patient who has had numerous subjections to infection and presents himself with a sore. Every patient with a genital sore is specific unless otherwise proven.

If you are willing to accept syphilitics as your patients you should verse yourself in method of doing dark field illuminations or

*Read before the Muscogee County Medical Society, April, 1925.

what may serve is India ink stain. The former is more satisfactory for here they are moving while in the latter the spirochetæ are still. In case a patient has used some antiseptic dressing you are delayed unless he has an adenitis; in this case you may aspirate one of the glands with a small needle, this of course, permits chance of failure. Failure on part of an expert to find spirochetæ does not indicate a lack of their presence, various factors have to be taken into consideration, one of which is practically all have used some treatment.

Wassermanns are never positive under three weeks, I believe, and rarely so until about six weeks. If you do not care to bear the responsibility of beginning treatment until you have obtained a positive blood test begin taking them at weekly intervals after fifteen days, (this regardless of whether the lesion is healed over or not). Take not less than four if all are negative; technical reasons for this appear in every Journal and text book. Please never tell your patient his blood is pure if he has a negative Wassermann. I wish that I were an artist that I might paint you a picture of some of your own patients who go to another physician months after you have made such a statement. He gives you an idea that on such a statement he has figuratively thrown back his shoulders, raised his vision above the horizon, and, after taking one deep breath, will say like Monte Christo, "The World is Mine." After an interesting conversation with him they convey the idea that they are immune to malaria, tuberculosis, gonorrhea, diphtheria, and many other ills from which the man animal suffers. It merely means when the condition is explained that you are lowered in his estimation, regardless of how tactfully the situation is handled. We all make big mistakes, but explain the value of a Wassermann, especially a negative one, which has very little value by itself. Only twenty to twenty-five per cent of all Wassermanns run by our State Laboratory, taken for all purposes are positive.

To wait until secondaries appear is absurd for two reasons, (provided your diagnosis is already made). I know that some of the foremost clinicians of our country did at

one time advocate the theory that on their appearance and then only should treatment begin, they have since changed. First reason why this is a bad policy is that it is very much like a child who has been definitely determined to have been exposed to diphtheria and developing cardinal symptoms, has to wait twenty-four hours for culture before getting antitoxin. Second reason is that secondaries do not always appear; whether some strains of spirochetæ are responsible is a mooted question.

Syphilis is so prevalent among both races in this section that in every case of obscure diagnosis you should consider its presence. Do not allow sex or social position to interfere with your examination. The symptoms are so many that they could hardly be defined as cardinal, you have all read Osler's maxim, "Know syphilis and its manifestations and all other things clinically will be added unto you." This conveys the idea that it resembles every disease known to man. Vague pain, undetermined skin lesions, persistent headaches, increase in temperature at odd and unexplained intervals would lead you to search further. Contrary to text books palpable glands do not indicate syphilis; otherwise every doctor in the land would have the disease. Symptoms of neuro-syphilis are too well described in the text books to be further mentioned here. Perhaps you and I both would be better off financially if we would knock the dust off of a few books on our shelves.

Treatment. The profession was flooded with literature on rectal suppositories of arsphenamine a short time back. Perhaps they may be of value in future generations, but at present they are not worthy of effort of inserting.

Sulph-arsphenamine has also found its place which is very limited. Only in cases where veins are destroyed or in children with small veins and in those occasional cases where arsphenamine causes reaction beyond control. Arsphenamine and neo-arsphenamine are the drugs of choice where arsenicals are concerned. Neo-arsphenamine is easiest used, most uniform in lack of reaction, and requires less exactness in preparation. There are several products on the market that are

passed by U. S. P. H. S. They vary only slightly.

Mercury, the sheet anchor, has been used orally, by inunction, intravenously and intramuscularly with seemingly good results by all methods. The most scientific method could be none other than intravenously; you have accurate dosage and a certainty. Of the various preparations that have been tried, mercuriosal ranks high. This is a synthetic mercury prepared by P. D. Co. Uncertainties follow most others; one is a possibility of poorly prepared solution, other is sclerosis of vein. Intramuscular injections are painful and tend to accumulate. The other two are dependent on patient and they cannot be depended upon. Circumstances may alter cases as in out of town patients. Mercury is not compatible with arsphenamine. Of recent years another drug has been resurrected from the dim past, bismuth. In a well rounded treatment of neurosyphilis bismuth is a necessity. It is compatible with arsphenamine; causes a remarkably quick disappearance of spirochetes and healing of lesions; does not cause pain but will cause ptyalism if pushed. Can be given in cardio—renal and liver complications without disturbance and is administered in oil intramuscularly. May I mention that Dr. Ballenger, of Atlanta, was among pioneers in its use. It replaces neither mercury nor arsphenamine. It is also used in treatment of early syphilis. K. I. maintains its same place as alternative as proven through the years but cannot be used to eliminate disease. Of all drugs exploited in treatment of syphilis, sodium cacodylate is most absurd. It is a tonic at all times but is a waste of time and material when used on syphilis.

The syphilophobic requires most sympathetic handling, particularly psychic. Imagine for one moment if you please the tremendous and overwhelming shock to an intelligent mind when he discovers he has syphilis. He knows a little and should thank his God he does not know more. Patient's diet should be well rounded, no alcohol, tonics as needed, daily evacuation of bowels. Systematic examinations should be made of ocular, cardiovascular and nervous systems.

Urine should be examined continuously and blood pressure record at intervals. Arsphenamine is eliminated by liver and mercury by kidneys. Patients should always be watched carefully especially if reactions occur. Nausea, etc., can be eliminated by tropine by mouth 30 minutes before treatment. Sodium thiosulphate by mouth, intravenously and in tissue itself (in case of extravasation) will cause more rapid elimination of all metals. In presence of albumin etc., mercury should only be used under accurate control of renal function. Arsphenamine aggravates ptyalism.

You can only do one of three things with a syphilitic, viz: eradicate, control or minimize the disaster. All depends upon strain of spirochetes, condition of patient and aptitude of doctor.

Here follows the minimum treatment by which you can hope to perform any of the three possibilities. Clinical and serological findings and death alone govern the maximum:

Cases of 1 month old and under—12 doses of neoarsphenamine (0.6 to 0.9 grams according to weight) 5 to 7 days apart, followed by 36 doses of mercury or I should say 12 weeks of mercury.

Positive clinical symptoms or Wassermann and spinal fluid call for 3 neoarsphenamine; 12 mercury or 20 bismuth, repeat after 4 weeks rest until absent.

After 1 month until considered case of long standing (3-6 months)—12 neoarsphenamine; 36 mercury, 4 weeks rest; 3 neoarsphenamine; 12 mercury, 2 months rest; 3 neoarsphenamine; 12 mercury or bismuth.

Repeat if any manifestations are present. (These figures are minimum of Saturation). Bismuth is best given in groups of 20.

Long standing:

12 Neoarsphenamine; 36 mercury. 1 month rest.

3 Neoarsphenamine; 12 mercury. 1 month rest. Wassermann.

3 Neoarsphenamine; 12 mercury or 20 bismuth. 3 months rest.

3 Neoarsphenamine; 12 mercury. 6 months rest. Wassermann.

3 Neoarsphenamine; 12 mercury.

This gives not less than 24 neoarsphenamine.

mine and total of 24 weeks of mercury or bismuth. Repeat if needed.

Wassermann fast or resistant cases call for a variation in procedure. If there are no manifestations rest with K. I. will allow further treatment to reduce Wassermans. You have your third drug to choose. Use the one you have not pushed and often results will surprise you. I do not believe there is a Wassermann that will not become negative. Most physeians in discussing treatment have left out mercury completely or nearly so. This should not be. If anything was to omitted it would be arsphenamine. Wonderful though it is, it could be omitted.

Neuro-syphilis is treated in various and sundry ways but most successful is continual plugging. Acute cases are rendered definitely better with least reaction by giving neoarsphenamine every week and every other week with drawing immediately afterwards all spinal fluid that comes off under pressure up to 50 c.c. enormous doses of iodides, pushing mercury. Bismuth here comes into its own; why we do not know, but it is believed to have a definite affinity for neurosyphilitic strains. I have had pleasure of seeing visible symptoms in several cases disappear under bismuth. More elaborate treatments produce no better results but are all described in text books.

After all treatment has been discontinued and you are fully satisfied in your mind that you have performed your duty take a Wassermann 2 to 4 times first year. 1 or 2 times second and third years and once a year thereafter if possible. If you can get co-operation you should have an annual clinical overhaul. Spinal fluid should be examined about as soon as first treatment is begun to see if there is any evidence of neuro-syphilis for it may show up in 6 weeks, certainly when you are nearly through. Is your patient well or not? You can tell better than a text book. You have seen him often, know his habits, disposition, and condition thoroughly. Wait three years and then tell him.

In closing I would like to have this parting remark, a negative Wassermann means nothing. I cannot begin to tell you how often we fall down on treatment of syphilis.

TWO DEATHS FROM ADMINISTRATION OF BARIUM SALTS

In a review of the literature from 1910, twelve deaths from barium carbonate, six deaths from barium chlorid and four deaths from barium sulphid poisoning were found by W. D. McNally, Chicago (Journal A. M. A., June 13, 1925). He adds two cases of barium sulphid and barium carbonate deaths. Barium poisoning manifests itself by great weakness, salivation and nausea. Vomiting and diarrhea follow. The purging is very violent, and causes severe abdominal pains. At this stage, usually, the victim becomes very cold. There is a catarrhal affection of the conjunctiva, the mucous membrane of the respiratory tract and the nose. Paralysis of the extremities and finally of the trunk are succeeding developments. The muscles of speech become very weak early in the poisoning, and swallowing very difficult. Consciousness always remains to the end. Treatment usually consists of ingestion of magnesium or sodium sulphate, stomach lavage, hot bags around the abdomen and spine, stimulation with aromatic spirit of ammonia, and strychnin injection. McNally urges that the barium sulphate given to patients for roentgen-ray examination should be only a chemically pure grade and be given by the person who is to make the examination. Each lot of barium sulphate should be tested for soluble barium compounds. In this way faulty prescriptions of physicians and careless dispensing by pharmacists would be avoided.

PRIMARY SYPHILIS OF THE ANORECTAL REGION

Edward G. Martin and Herbert I. Kallet, Detroit (Journal A. M. A., May 23, 1925), have been impressed with the large number of cases of primary syphilis involving the anorectal region. This is distinctly in contrast with the experience of other observers, who are inclined to regard this type of extragenital lesions as more or less a rarity, and who accord it little clinical importance. During the past year, from a group of 300 proctologic cases, there were twenty cases diagnosed positively as chancre, and five others that were probably positive. Dark field examination was positive in thirteen cases, negative in two and not made in ten. The Wassermann reaction was noted in seventeen cases. It was positive in five cases and negative in twelve. In these cases, the chancre is accompanied early by a dermatitis and condyloma formation that distinctly modifies its appearance. The presence of a moist condyloma, especially in the young man, should suggest and be checked by dark field examination. Condyloma acuminatum—so-called—is not necessarily nonsyphilitic, and is often very infectious.

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Profession of Georgia.

65 Forrest Ave., Atlanta, Ga.

JANUARY, 1926

ALLEN H. BUNCE, M. D., Editor

Publication Committee

CHAS. USHER, M. D.

S. J. LEWIS, M. D.

T. C. THOMPSON, M. D.

Articles are accepted for publication on condition that they are contributed solely to this Journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Reprints should be ordered within 30 days after the appearance of an article, since all type will be destroyed at the end of that time.

Editorial Department

IMPORTANCE OF HEALTH EXAMINATIONS STRESSED BY SURGEON GENERAL CUMMING, U. S. PUBLIC HEALTH SERVICE

The physician's place in the early detection of disorders and habits that eventually lead to serious degenerative conditions, such as heart disease, was discussed by Surgeon General Hugh S. Cumming, of the United States Public Health Service, before the annual meeting in December of the Seaboard Medical Association at Norfolk, Virginia. The subject of the Surgeon General's paper was "The Significance and Importance of Periodic Medical Examinations." This new health movement was characterized as significant from the standpoint of preventive medicine, because it emphasizes the importance of the individual assuming a larger share of responsibility for his own health through utilizing the service of his physician for health promotion as well as for disease prevention.

THE PHYSICIANS' HOME, Inc., ENDOWMENT FUND CAMPAIGN

Announcement was made today by President Robert T. Morris, M.D., of The Physicians' Home, Inc., that an endowment campaign has been started by the Directors of the Home for the purpose of raising funds to endow a **national home** for aged and incapacitated physicians who are left without financial resources in the autumn of life.

The Physicians' Home, Inc., is not an experiment in any sense. Four years ago one unit was established at Caneadea, N. Y., through the generosity of Dr. Stephen V. Mountain, who generously donated the property and building at Caneadea, N. Y., and it has met with such great success that the directors believe it their duty to enlarge the scope of the enterprise, because of the large waiting list which they are unable to accommodate at the Caneadea Unit.

The general plan outlined by Dr. Robert T. Morris and his associates, is to care for a thousand or more physicians at the national home and a dozen or more individuals in the smaller units.

Dr. Charles H. Mayo of Rochester, Minn., has given his unqualified endorsement to the movement and is heading the Committee of Sponsors who will have the campaign in charge. Other prominent physicians and lay-men will also serve as sponsors.

All checks should be drawn to the order of "The Physicians' Home, Inc.," and should be forwarded to Dr. Albert G. Weed, National Treasurer, 22nd floor of the Times Building, 42nd Street and Broadway, New York City.

This is the first movement of its kind for physicians in America seeking to secure funds, the income from which will sustain an institution or a series of institutions, having for their purpose the care of those in the medical profession who through generosity, unpaid service, or who through their devotion to the pure science of medicine and laboratory investigation with its small financial return, or who through illness or incapacity find themselves in their declining years unable to provide themselves and their dependents with the necessities of life.

Of course, medical profession has its percentage of those who have not had the training or opportunity to lay away sufficient money to finance them in their old age. Then, there are those who have not had the habit of collecting their bills, and who have suffered thereby; and it also will include the younger men in the profession, who, falling ill, have no place to go and none to care for them during their illness. To these latter this home and its units will prove a great blessing and God-send in administering to their needs until they regain health and can again take up the work of their profession.

This is not intended as a pauperizing movement, nor is the campaign to be one in which there is to be a "sob-element." It is rather to be a digni-

fied effort on the part of the profession itself to take care of its own needy ones and who ask the cooperation of the generous and well-to-do layman and woman to help.

The name tentatively selected for the Home is "Tranquility"; a name that adequately defines peaceful comfort to all found within its walls.

The general plan is to have the Home so laid out that it will typify a real home within which are to be found all those little creature comforts essential to the peace of body and mind of those who are to be the beneficiaries.

One of the features will be a laboratory where the old physician may continue his investigations and study, and thus give him an opportunity of employing head and hand and heart for the advancement of his profession. Another feature of the Home will be provision for the wife or other dependents of the physician so that families may not be broken up.

LETTERS FROM OUR NEW ADVERTISERS

To the Editor:

You perhaps know that our company has been operating successfully in this business for 65 years and now operates 17 factories. Our list of satisfied customers greatly exceed 100,000 in number and in the State of Georgia are ten times as many people wearing Hanger legs as those who use all other styles put together.

We are contractors for the United States Government, British Government, Canadian Government, French Government, Belgian Government, and do the great majority of work for the Atlantic Coast Line R. R., the Baltimore & Ohio Railroad, the Pennsylvania Railroad, in addition to some ninety or more other industrial organizations, all of whom prefer the Hanger leg and arm to any and all others.

Yours very truly,

J. E. HANGER, Inc., of GA.,
Artificial Legs and Arms.

To the Editor:

Our advertising program for next year calls for many changes and among others we are pleased to state that we have decided to contract for twelve full pages in the Georgia Journal, beginning with January.

For our first insertion in the January issue you will receive within the next week an electro entitled "A One Drug Cough Remedy"

on our specialty, Thioeol Syrup 'Roche'. The copy has been accepted of course by the Advertising Committee of the A. M. A., and in fact is appearing in the other State Journals in which we advertise, both this month and next.

It is our hope that when the end of 1926 rolls around we shall have detected a very substantial increase in the sales of our products in your territory.

Very truly yours,

THE HOFFMANN-LA ROCHE CHEMICAL WORKS.

To the Editor:

We are making application for the privilege of advertising in your journal for the next twelve months, beginning with next issue, at rate quoted us.

If consistent, we would thank you for a little reading notice regarding our distilled water, which you can make up to suit yourselves. We can give you any desired information about it, but probably you will not need it.

This water has been on the market for 17 years, and is not only recommended by many physicians, who use it in their practice and also drink it, but it is for sale at a majority of the drug stores in Atlanta. It is also sold extensively for manufacturing, chemical and medicinal purposes, where the requirements are rigid. It is known generally as "Pura Water."

Yours truly,
PURA WATER COMPANY.

To the Editor:

Replying to your letter of November 19th, we are enclosing your advertising order blank and a copy of an ad to go into your Journal. As the advertisement says, it was really with the idea in view of meeting the tire emergencies of the Medical Profession that we did keep open all night, and while the response from the Medical Profession has not been exactly what we believe it should have been, we feel that with the assistance of this advertising medium, it might possibly bring better results. We are really glad that you sent us this advertising blank

Yours very truly,
PRIOR TIRE COMPANY.

District and County Societies

District Editors

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. McGee, H. H., Savannah. 2. Watt, C. H., Thomasville. 3. Greer, Chas. A., Oglethorpe. 4. Williams, C. O., West Point. 5. Fitts, Jno. B., Atlanta. 6. Thompson, O. R., Macon | <ol style="list-style-type: none"> 7. McCord, M. M., Rome. 8. Carter, D. M., Madison. 9. Bennett, J. C., Jefferson. 10. Lee, F., Lansing, Augusta. 11. Penland, J. E., Waycross 12. Cheek, O. H., Dublin. |
|--|---|

1926 HONOR ROLL

The following is a list of counties 100 per cent in membership for 1926. The date on which each became a 100 per cent society appears after the name of the society, together with the name of the secretary:

1. Randolph County, Dr. G. Y. Moore, Cuthbert, November 5, 1925.
2. Warren County, Dr. Robert C. McGahee, Warrenton, December 22, 1925.
3. Dougherty County, Dr. Albert S. Bacon, Albany, January 4, 1926.
4. Upson County, Dr. H. A. Barron, Thomaston, January 7, 1926.

We have just recently been informed by Drs. N. Overby, Secretary-Treasurer of the Washington County Medical Society, and R. S. O'Neal, Secretary-Treasurer of the Troup County Medical Society, that their respective Societies were 100 per cent in membership for 1925. We would have been very glad to have placed them upon the 1925 "Honor Roll" but received the information too late.

THIRD DISTRICT MEDICAL ASSOCIATION

The thirty-seventh semi-annual session of the Third District Medical Association was held at Cordele, November 18th, as the guest of Crisp County Medical Society.

After a most appreciative address of welcome in behalf of the city by Judge O. T. Gower, and the President of Crisp County Medical Society by Dr. T. E. Bradley, the scientific program was entered into and was as follows:

"Ulcer of the Cornea"—Dr. Ford Ware, Americus.

"Three Sins Against Children: Purgation, Dehydration, Starvation"—Dr. Thos. D. Walker, Macon.

"The Business Side of the Medical Profession"—Dr. E. C. McCurdy, Shellman.

Immediately after Dr. McCurdy's lecture a recess was taken in order to enjoy a recep-

tion by the Ladies' Clubs at the Suwanee Hotel, reconvening at six o'clock with talks by Dr. J. W. Daniel, of Savannah, on "Examination of the Chest"; "Acute Osteomyelitis," by Dr. J. C. Patterson, Cuthbert; "Does Public Health Work Pay?" by Dr. T. F. Abercrombie, State Health Commissioner, Atlanta, and "Treatment of Menstrual Disorders by Radium," by Dr. Arthur C. Primrose, Americus. Report of Councillor. Dr. V. O. Harvard, Arabi, Georgia, closed the scientific program.

Officers for the ensuing year were elected as follows:

President—Dr. J. C. Patterson, Cuthbert.

Vice-President—Dr. Sam P. Wise, Plains.

After accepting an invitation to hold the 38th semi-annual session with Sumter County Medical Society, the Association adjourned, and was escorted to the dining room of the Suwanee Hotel, where a delightful banquet was most heartily enjoyed by all the doctors, their wives and friends. After-dinner speeches, interspersed with readings and songs, added all the more to the entertainment.

CHAS. A. GREER, M.D.,
Secretary-Treasurer.

JOINT MEETING 3rd, 12th AND 6th DISTRICTS

The Third, Twelfth and Sixth District Medical Societies met as guests of the Bibb County Medical Society, at the Dempsey Hotel, Macon, December 2, 1925. The meeting was called to order at 10:30 A. M., by the President, Dr. T. E. Rogers, of Macon. After the invocation by Rev. Oliver J. Hart, the following scientific program was carried out:

1. "Interstitial Pregnancy with Fibroids," Dr. N. T. Carswell, Macon. Discussion by Dr. O. H. Weaver and Dr. C. C. Harold, Macon.

2. "Report of a Case of Madura Foot in a Georgia Negro—Case Demonstrated," Dr. C. C. Harrold, Macon. Discussion by Dr. N. T. Carswell, Macon.

3. "Basal Metabolism," Dr. C. C. Hinton, Macon. Discussion by Dr. C. C. Harrold, Macon; Drs. Allen H. Bunce and E. C. Thrash, Atlanta.

4. "Symptoms of Foreign Bodies in the Air and Food Passages, and Report of Two Cases of Long Duration," Dr. C. L. Pennington, Macon. Discussion by Dr. C. C. Hinton, Macon; Drs. Allen Bunce and E. C. Thrash, Atlanta; Dr. T. C. Thompson, Vidalia, and Dr. O. H. Cheek of Dublin.

5. "Business Side of the Medical Profession," Dr. E. C. McCurdy, Shellman.

6. "Toxin-Antitoxin," Dr. Ben Bashinski, Macon. Discussion by Dr. C. L. Ridley, Macon, and Dr. O. H. Cheek, Dublin.

7. "Fracture of the Surgical Neck of the Femur of Long Duration with Probable Absorption—Case Demonstrated," Dr. J. K. Maloy, Milan. Discussed by Dr. W. A. Newman, Macon.

8. "Report of a Case of Typhoid Fever with Appendicitis as a Complication," Dr. B. F. Akin, Jenkinsburg.

9. "How to Treat a Common Cold," Dr. M. M. Stapler, Macon.

At 2:00 P. M. the meeting was adjourned, at which time the visiting doctors were guests of the Bibb County Medical Society at a luncheon in the Gold Room of the Hotel.

After lunch the meeting was called to order by the President and interesting talks were made by the following: Dr. Frank K. Boland, Atlanta, President State Medical Association; Dr. Allen H. Bunce, Atlanta, Secretary State Medical Association; Dr. V. O. Harvard, Arabi, Councillor of the Third District Society; Dr. T. C. Thompson, Vidalia, Councillor of the Twelfth District Society; Dr. M. M. Head, Zebulon, Councillor of the Sixth District Society, Dr. C. A. Greer, Oglethorpe, Secretary of the Third District Society, and Dr. J. R. Anthony, of Griffin.

The Sixth District Society held its annual election of officers, resulting in the following elections:

President: Dr. A. F. White, Flowilla.

Vice-Pres.: Dr. C. C. Hinton, Macon.

Sec'y & Treas.: Dr. O. R. Thompson, Macon.

The June meeting of the Sixth District Medical Society will be held at Indian Springs.

O. R. THOMPSON,
Acting Secretary.

THE LEON MOYE MEDICAL SOCIETY

The Leon Moye Medical Society, which is composed of Montgomery, Treutlen, Wheeler and Tombs Counties, was given a smoker and entertained by Dr. J. W. Palmer, of Ailey, while holding their November meeting at his office on the evening of the 19th.

Dr. J. M. Rattrey, of Vidalia, and Dr. J. C. Collins, of Collins, read very timely and beneficial papers which were discussed by various members.

There was a Committee appointed to take the proper action to have the Ellis Health Law adopted for each of the four Counties. Those present were: Drs. I. E. Aaron and W. W. Odom, Lyons; J. C. Collins, Collins; J. C. Harris, Reidsville; W. A. Rivers, Glenwood; Geo. M. Barwick, F. L. Lanier and Otis Moye, Soperton; H. C. Sharpe and W. M. Moses, Uvalda; J. E. Mereer, C. W. Findley, T. C. Thompson, Jno. M. Meadows and J. M. Rattrey, Vidalia; J. W. Palmer, Ailey, and J. E. Hunt, Mt. Vernon.

J. E. MERCER, President,

C. W. FINDLEY, Secretary-Treasurer.

THE TRI-COUNTY MEDICAL SOCIETY

The Tri-County Medical Society, composed of the counties of Early, Calhoun and Miller, with members in Clay and Baker, met in Blakely, Wednesday, December 9th, 1925. The meeting was called to order by Dr. S. P. Holland, of Blakely, President. Much business of importance was transacted at the morning session.

A splendid dinner was served at the City Cafe at 1:00 p. m.

At the afternoon session, the annual election of officers took place and resulted as follows:

President—Dr. J. G. Standifer, of Blakely.

Vice-President—Dr. W. C. Hays, of Colquit.

Secretary—Dr. C. R. Barksdale, of Blake-ly.

Board of Censors—Dr. P. E. Griffin, of Edison; Dr. P. H. Fitzgerald, of Blakely; Dr. J. L. Cheshire, of Damascus.

Delegate to the Medical Association of Georgia—Dr. C. W. Twitty, of Elomdel; alternate delegate—Dr. J. S. Beard, of Edison.

The committees for 1926 were announced as follows:

Program Committee—Dr. C. K. Sharp of Arlington, Dr. J. G. Standifer and Dr. C. R. Barksdale of Blakely.

Committee on Public Health and Instruction—Dr. P. H. Fitzgerald of Blakely; Dr. W. O. Shepard of Bluffton; Dr. C. J. Jenkins, of Edison; Dr. S. P. Holland, of Bleckley, and Dr. C. K. Sharp, of Arlington.

A paper, entitled "Retrospects and Prospects," was presented by Dr. P. E. Griffin, of Edison. This was discussed by Dr. J. G. Standifer and Dr. P. H. Fitzgerald, of Blakely; J. H. Henry of Bainbridge, and W. C. Hays of Colquitt. Dr. Hays also touched on "Retrospects and Prospects" in the Georgia State Senate.

It was decided to hold quarterly meetings during 1926 on the second Wednesdays at the following places:

March meeting in Colquitt.

June meeting in Arlington.

September meeting in Edison.

December meeting in Blakely.

C. K. SHARP, 1925,
Secretary-Treasurer.

BURKE COUNTY MEDICAL SOCIETY

The annual meeting of the Burke County Medical Society was held at Midville, on the evening of December 4, 1925.

The following officers were elected for the ensuing year:

President—Dr. W. C. McCarver, Vidette.

Vice-President—Dr. H. F. Bent, Midville.

Secretary-Treas.—Dr. R. L. Miller, Waynesboro.

Delegate—Dr. R. L. Miller, Waynesboro.

Alternates—Dr. J. M. Byne, Waynesboro, Dr. W. H. Sutton, Midville.

After the business session the Society ad-

joined to the home of the retiring President, Dr. W. R. Lowe, where they were the guests of Dr. and Mrs. Lowe at an elegant dinner.

The members of the Jenkins County Medical Society and some of the Emanuel County members were also present.

R. L. MILLER, Secretary.

1925 OFFICERS OF MUSCOGEE COUNTY

Dr. Frances B. Blackmar, 1925 Secretary-Treasurer of the Muscogee County Medical Society, has called our attention to the fact that in last month's Journal (the Directory issue) Dr. J. H. Pennington's name should have been listed as Vice-President instead of that of Dr. J. C. Wooldridge.

COUNTY SOCIETIES REPORTING FOR 1926

Through December 31, 1925, reports had been received for 1926 from the following 22 county societies, including dues for 191 members. At the same time last year only 12 counties had reported with a total of 109 paid-up members:

Randolph County Medical Society—100%

On November 5, 1925, we received the 1926 report of Randolph County Medical Society, enclosing check for \$65.00 covering dues for every eligible doctor in the County. This makes Randolph head the "1926 Honor Roll." The following are the newly elected officers:

President—W. W. Binion, Benevolence.

Vice-President—H. R. Ingram, Coleman.

Secretary-Treasurer—G. Y. Moore, Cuthbert.

Delegate—F. M. Martin, Shellman.

Alternate—E. C. McCurdy, Shellman.

Board of Censors—F. S. Rogers, F. D. Patterson and E. C. McCurdy.

Pike County Medical Society

Dr. M. M. Head came a close second in sending in his report on November 28, 1925. The following are the 1926 officers:

President—No election.

Vice-President—D. L. Head, Zebulon.

Secretary-Treasurer—M. M. Head, Zebulon.

Delegate—M. M. Head, Zebulon.

Board of Censors—J. R. Graves, I. B. Howard and R. A. Mallory.

Jones County Medical Society

The 1926 report of Jones County was also received during November. The following officers were announced:

President—J. H. Riley, Sylvester.
 Vice-President—J. D. Zachary, Gray.
 Delegate—J. H. Riley.

Montgomery County Medical Society

Montgomery came fourth in sending in its report for 1926. The following officers were elected:

President—W. M. Moses, Uvalda.
 Vice-President—H. C. Sharpe, Uvalda.
 Secretary-Treasurer—J. E. Hunt, Mt. Vernon.
 Delegate—J. W. Palmer, Ailey.

Hall County Medical Society

The Hall County Medical Society announces the following officers for 1926:

President—J. R. Bryson, Gainesville.
 Vice-President—W. T. Meeks, New Holland.
 Secretary-Treasurer—Pratt Cheek, Gainesville.
 Delegate—J. H. Downey, Gainesville.
 Alternate—Bradley B. Davis, Gainesville.
 Board of Censors—C. D. Whelchel, J. B. Rudolph and J. D. Mauldin.

Talbot County Medical Society

The Talbot County Medical Society announces the following officers for 1926:

President—J. E. Peeler, Woodland.
 Vice-President—W. P. Leonard, Talbotton.
 Secretary-Treasurer—C. C. Carson, Talbotton.
 Delegate—G. L. Carter, Talbotton.

Bibb County Medical Society

The Bibb County Medical Society announces the following officers for 1926:

President—O. R. Thompson, Macon.
 Vice-President—C. L. Ridley, Macon.
 Secretary-Treasurer—Ralph Newton, Macon.
 Delegates—F. L. Webb and J. B. Ward, Macon.
 Alternates—W. A. Newman and W. E. Mobley, Macon.

Board of Censors—O. H. Weaver, A. R. Rozar and J. M. Sigman.

Muscogee County Medical Society

The Muscogee County Medical Society announces the following officers for 1926:

President—Francis B. Blackmar, Columbus.
 Vice-President—A. N. Dykes, Columbus.
 Secretary-Treasurer—Guy J. Dillard, Columbus.
 Delegate—Mercer Blanchard, Columbus.
 Alternate—Frank P. Norman, Columbus.

Cherokee County Medical Society

The Cherokee County Medical Society announces the following officers for 1926:

President—Samuel R. Harbin, Canton.
 Vice-President—John T. Pettit, Canton.
 Secretary-Treasurer—George C. Brooke, Canton.
 Delegate—Grady N. Coker, Canton.
 Alternate—John T. Pettit, Canton.
 Board of Censors—R. M. Moore, N. J. Coker and George C. Brooke.

Jenkins County Medical Society

The Jenkins County Medical Society announces the following officers for 1926:

President—M. E. Perkins, Millen.
 Vice-President—Q. A. Mulkey, Millen.
 Secretary-Treasurer—C. Thompson, Millen.
 Delegate—Q. A. Mulkey, Millen.
 Alternate—C. Thompson, Millen.

Carroll County Medical Society

Dr. O. W. Roberts, Councilor of the Fourth District, sent in a report of the regular meeting of the Carroll County Medical Society, which was held December 15, 1925. As the time was devoted to the annual business no papers were read. The dues were increased to \$7.50 and the following officers elected for 1926:

President—D. S. Reese, Carrollton.
 Vice-President—O. W. Roberts, Carrollton.
 Secretary-Treasurer—C. C. Fitts, Carrollton.

Elbert County Medical Society

The Elbert County Medical Society announces the following officers for 1926:

President—T. H. Gaines, Elberton.
 Vice-President—G. A. Ward, Elberton.
 Secretary-Treasurer—B. B. Mattox, Elberton.
 Delegate—B. B. Mattox, Elberton.
 Alternate—A. C. Smith, Elberton.
 Board of Censors—O. B. Walker, F. L. Adams and J. E. Johnson.

Ware County Medical Society

The Ware County Medical Society announces the following officers for 1926:

President—W. D. Mixon, Waycross.
 Secretary-Treasurer—E. B. Mitchell, Waycross.
 Delegate—H. J. Carswell, Waycross.
 Alternate—K. McCullough, Waycross.
 Censor—D. M. Bradley, Waycross.

Colquitt County Medical Society

The Colquitt County Medical Society announces the following officers for 1926:

President—S. M. Withers, Moultrie.
 Vice-President—H. T. Edmondson, Moultrie.
 Secretary-Treasurer—J. F. Covington, Moultrie.
 Delegate—J. A. Summerlin, Pelham.
 Alternate—C. C. Brannan, Moultrie.

Warren County Medical Society—100%

On December 22nd Dr. A. W. Davis, 1925, Secretary-Treasurer of the Warren County Medical Society, sent in the 1926 report of his Society with a 100% membership. We are glad to place Warren County as second on our "Honor Roll." The following officers were elected:

President—A. W. Davis, Warrenton.
 Vice-President—F. L. Ware, Warrenton.
 Secretary-Treasurer—Robert C. McGahee, Warrenton.
 Delegate—H. L. Earl, Jewell.
 Alternate—F. B. Ricketson, Warrenton.
 Board of Censors—A. W. Davis and F. L. Ware.

Bartow County Medical Society

The Bartow County Medical Society announces the following officers for 1926:

President—W. E. Wofford, Cartersville.

Vice-President—R. E. Wilson, Cartersville.

Secretary-Treasurer—T. Lowry, Cartersville.

Delegate—C. L. Ellis, Kingston.

Board of Censors—R. E. Adair, S. M. Howell and W. C. Griffin.

Thomas County Medical Society

The Thomas County Medical Society announces the following officers for 1926:

President—E. K. McLean, Thomasville.

Vice-President—J. M. King, Metcalfe.

Secretary-Treasurer—C. K. Wall, Thomasville.

Delegate—C. K. Wall, Thomasville.

Alternate—C. H. Ferguson, Thomasville.

Tri (Early, Miller and Calhoun Counties) Medical Society

The Tri Medical Society announces the following officers for 1926:

President—J. G. Standifer, Blakely.

Vice-President—W. C. Hayes, Colquitt.

Secretary-Treasurer—C. R. Barksdale, Blakely.

Delegate—C. W. Twitty, Elmodel.

Alternate—J. S. Beard, Edison.

Board of Censors—P. E. Griffin, P. H. Fitzgerald and J. L. Cheshire.

Chattooga County Medical Society

The Chattooga County Medical Society announces the following officers for 1926:

President—B. F. Shamblin, Lyerly.

Vice-President—W. J. Bryant, Summerville.

Secretary-Treasurer—H. D. Brown, Summerville.

Board of Censors—G. E. Martin, M. N. Wood and W. B. Hair.

Burke County Medical Society

The Burke County Medical Society announces the following officers for 1926:

President—W. C. McCarver, Vidette.

Vice-President—H. F. Bent, Midville.

Secretary-Treasurer—R. L. Miller, Waynesboro.

Delegate—R. L. Miller, Waynesboro.

Alternate—J. M. Bynce, Waynesboro.

Cook County Medical Society

The Cook County Medical Society announces the following officers for 1926:

President—S. G. Ethridge, Sparks.

Vice-President—H. W. Clements, Adel.

Secretary-Treasurer—W. M. Shepard, Adel.

Walker County Medical Society

The Walker County Medical Society announces the following officers for 1926:

President—M. W. Spearman, Chickamauga.

Vice-President—J. A. Shields, LaFayette.

Secretary-Treasurer—J. H. Hammond, LaFayette.

Censor—J. M. Underwood, LaFayette.

Woman's Auxiliary of the Medical Association of Georgia

OFFICERS

President.....Mrs. William H. Myers, Savannah Secretary-Treasurer.....Mrs. A. J. Mooney, Statesboro
Vice-President-at-large.....Mrs. C. W. Roberts, Atlanta Parliamentarian.....Mrs. Allen H. Bunce, Atlanta

District Managers

1st District.....Mrs. A. J. Waring, Savannah	7th District.....Mrs. W. H. Perkinson, Marietta
2nd District.....Mrs. Gordon Chason, Bainbridge	8th District.....Mrs. Paul Holliday, Athens
3rd District.....Mrs. R. H. Pate, Unadilla	9th District.....Mrs. J. H. Downey, Gainesville
5th District.....Mrs. James N. Brawner, Atlanta	10th District.....Mrs. T. E. Oertel, Augusta
6th District.....Mrs. C. H. Richardson, Jr., Macon	11th District.....Mrs. B. H. Minchew, Waycross
	12th District.....Mrs. T. C. Thompson, Vidalia

THE WOMAN'S AUXILIARY TO THE FULTON COUNTY MEDICAL SOCIETY ENTERTAINS THE WIVES OF ALL ITS MEMBERS

The Woman's Auxiliary to the Fulton County Medical Society entertained at a delightful tea the wives of all members of the Fulton County Medical Society on Tuesday afternoon, December 2, 1925. The Academy

of Medicine, the home of the Society at 32 Howard Street, Atlanta, was beautifully decorated by Mrs. W. L. Champion and her Committee. Tea was served by the House Committee, of which Mrs. Charles E. Waits is the efficient Chairman. Mrs. Allen H. Bunce, and the members of her Executive Board, acted as hostesses.

Mr. Fred Houser, of the Atlanta Conven-

tion Bureau, gave an instructive talk concerning the plans of the entertainment in Atlanta of the Southern Medical Association next Fall.

The officers of the Auxiliary to the Fulton County Medical Society are: Mrs. Marion T. Benson, President; Mrs. Allen H. Bunce, 1st Vice-President; Mrs. James N. Brawner, 2nd Vice-President; Mrs. Theo Toepel, 3rd Vice-President; Mrs. Floyd McRae, Jr., Recording Secretary; Mrs. Willis Ragan, Corresponding Secretary, and Mrs. Geo. M. Niles, Treasurer.

MRS. C. W. ROBERTS, Vice-Pres.,
At-Large, Woman's Auxiliary to the State
Asso.

NEWS ITEMS

Before ordering supplies or service consult your Journal and patronize those that patronize you. If it were not for the advertisers there would be no Journal of the Medical Association of Georgia.

Dr. J. H. Riley, after having practiced for seventeen years in Haddock, Jones County, has removed to Sylvester, Worth County. He has been President of the Jones County Medical Society for the past five years and local Surgeon for the Georgia Railway for twelve years.

Dr. W. I. Hailey, of Hartwell, was recently elected by a large majority as Mayor of his home town. We naturally believe that under Dr. Hailey's administration greater things will be done in Hartwell than ever before.

Dr. Patrick H. Smith, 1925 Secretary-Treasurer of the Tatnall-Evans Counties Society, in correcting his report for the Directory issue of the Journal, changed his address from Glenville to Eastville, Virginia. We regret to learn of Dr. Smith's removal not only because he was one of the most competent County Secretaries we have ever had but also because he was liked so well personally.

Dr. J. L. Weddington and his family have removed to Henderson, North Carolina, after having been residents of Dublin for more than twenty-five years. Dr. Weddington was one of the most popular physicians, both professionally and socially, in Laurens County and will be greatly missed by all.

Dr. and Mrs. O. W. Roberts, of Carrollton, lost their little daughter, Virginia Anne, on November 25, 1925. Dr. Roberts is the very efficient Councilor of the Fourth District and has the heartfelt sympathy of the members of the Association at-large.

Give your business to the firms that advertise in your Journal. Make them glad that they favored the Journal of the Medical Association of Georgia with an ad.

The friends of Dr. J. G. Wood will be interested to learn that he has removed his office from 66 E. Ellis Street to the Doctors' Building, Atlanta. Practice limited to Eye, Ear, Nose and Throat. Dr. Wood is one of the new 1925 members of the Fulton County Medical Society, having formerly been connected with the U. S. Veterans Bureau in Atlanta.

Dr. E. Franklin Sapp announces the opening of offices at 262 West Flagler Street, Miami, Florida. Practice limited to Eye, Ear, Nose and Throat. Before his removal Dr. Sapp was one of our good men from Albany.

Dr. Champneys H. Holmes has opened up offices in the Physicians' Building, 41 Forrest Avenue, Atlanta, having removed from 53 Forrest Avenue. Dr. Holmes is a member of the Fulton County Medical Society.

From the Macon "Telegraph" we learn that Dr. L. G. Hardman, of Commerce, may make the race for Governor of Georgia. Besides being one of the leading physicians of the State he is a banker, manufacturer and a graduate of the University of Georgia Medical College in the Class of '76.

The friends of Dr. Walter R. Holmes, Atlanta, are sympathizing with him upon the death of his mother, Mrs. Walter R. Holmes, of Macon, December 1, 1925.

Dr. C. C. Aven, Atlanta, was presented with a beautiful watch by the Tuberculosis Association of Atlanta, Georgia. The presentation was made by Dr. Dan Y. Sage, Atlanta. Dr. Aven was succeeded as chief of the staff by Dr. Z. S. Cowan, Atlanta.

Dr. E. O. Scharnitzky, Augusta, has been elected to the Executive Board of the Prison Physicians' Association of America. Dr. Scharnitzky is Richmond County physician and a member of the Richmond County Medical Society.

Dr. Ford Ware, formerly of Cordele, is now associated with Dr. L. F. Grubbs at the Eye, Ear, Nose and Throat Clinic, Doctors' Building, Americus. Dr. Ware will transfer his membership from the Crisp to the Sumter County Medical Society.

Dr. W. Earl Wofford, of Cartersville, and a member of the Bartow County Medical Society, has been elected Commander of the Carl Boyd Post, American Legion, for 1926.

The advertisers patronize you. Do you patronize them?

Did you mention the Journal of the Medical Association of Georgia when writing to advertisers? Let them know that it pays to advertise in your Journal!

Dr. T. J. McArthur, of Cordele, was made First Vice-President of the Seaboard Air Line Railway Surgeons' Association at its twenty-second annual meeting held in St. Petersburg, Florida, December 2, 1925.

Dr. C. L. Ridley, Macon and Bibb County Health Officer, has been elected Superintendent of the Macon Hospital, in addition to his other duties. The Health Department moved its offices in the Hospital and will carry its work on in connection with it. The Executive Committee is composed of Drs. C. H. Richardson, Carl Anderson, C. C. Harrold, G. Y. Massenburg and Wm. J. Little, all of Macon.

The members of the Thomas County Medical Society held a clinic at the John D. Archbold Memorial Hospital, Thomasville, December 10, 1925. They were assisted by Drs. V. P. Sydenstricker, Diagnostician; W. A. Mulherin, Pediatrician, and H. M. Michel, Orthopedic Surgeon, all of Augusta and members of the Medical Staff of the University of Georgia Medical College.

Dr. Carlisle S. Lentz, Superintendent of the University Hospital, Augusta, and well-known hospitalization expert, recently investigated the affairs of the Macon Hospital to ascertain the possibility of operating it more economically and with greater efficiency.

At the meeting of the Wesley Memorial Hospital Staff, Emory University, December 11, 1925, Dr. Stewart R. Roberts was elected President, Dr. John F. Denton, Vice-President, and Dr. Glenville Giddings, Secretary. These officers are all from Atlanta and members of the Fulton County Medical Society.

Ground was broken on the new unit of the \$500,000 Georgia Baptist Hospital, at North Boulevard and East North Avenue, Atlanta, Sunday, December 6, 1925. Dr. Arch C. Cree is Superintendent of the Hospital and is greatly responsible for the success of this undertaking.

Drs. Chas. Usher, V. H. Bassett, James N. Carter, R. V. Martin and Lawrence Lee, President, attended the November meeting of the Savannah Health Center. Interesting reports of the various committees were read.

Dr. M. J. Egan, Savannah, talked on "Sacral Anesthesia" at a recent meeting of the Chatham County Medical Society.

At the November meeting of the Richmond County Medical Society Dr. Geo. A. Traylor, Augusta, read a paper on "Automobile Injuries of the Back." Dr. Edgar Pund's article, "The Occurrence of Malignant Tumors in and about Augusta," and Dr. John C. Wright's paper, "Tuberculosis of the Kidney," also proved of interest to those present.

The members of the Fulton County Medical Society entertained at their home. The Academy of Medicine, Atlanta, December 18, 1925, at a dance and buffet supper. Card tables were provided for those who desired to use them. Dr. W. A. Selman, Atlanta, was Chairman of the Entertainment Committee.

Talk up the Journal of the Medical Association of Georgia as an advertising medium. It's your Journal and the more we make out of advertisements the less it costs you to print the Journal. We will be glad to send rates upon request.

THE SEALE HARRIS CLINIC

The Seale Harris Clinic, Birmingham, Ala., announces to the medical profession that on December first its offices and clinical laboratories were removed to 2234 Highland Avenue, corner Sycamore Street. The Clinic also announces that additional accommodations for patients will be provided in the Hotel Gorgas.

The Hotel Gorgas, completed December first, was planned and constructed to care for the sick and convalescent cases in which diet is an important factor in treatment. It is a six-story reinforced concrete and fire-proof brick building containing 60 rooms, 36 with private baths, providing the comforts and many of the features of a resort hotel and the equipment of a modern hospital. Patients under observation for diagnosis, relatives of patients and visiting physicians, in addition to patients not requiring hospital care, can be accommodated on the second and third floors of the Hotel Gorgas.

The fourth and fifth floors of the Hotel Gorgas, for bed patients, will include major and minor operating rooms, cystoscopic room and departments of electrotherapy, hydrotherapy, massage and Swedish exercises, and other forms of physiotherapy.

The sixth floor will be given over entirely to the dining room and for recreation, with palm room, reading room, solarium, terraces and pergola. Heliotherapy will be stressed.

A distinctive feature of the Hotel Gorgas will be the instruction of all patients, in groups and individually, in food values and vitamins, physical exercises, mental hygiene, oral hygiene, and in other matters pertaining

to personal health. Special courses of instruction on diet and the use of insulin in diabetes will be given to diabetics and to physicians.

Physicians interested in gastro-intestinal and nutritional diseases, in clinical laboratory methods, x-ray technic, electrotherapy and physiotherapy are cordially invited to visit the Clinic and the Hotel Gorgas at any time.

The Hotel Gorgas will be advertised only to physicians.

DR. SEALE HARRIS

DR. J. P. CHAPMAN

DR. W. S. GEDDES

Medical Progress

Department Editors

Anderson, W. W., Pediatrics
Ballenger, E. G., Urology
Bartholomew, R. A., Obstetrics
Block, E. B., Neurology and Psychiatry
Clay, Grady E., Ophthalmology
Dowman, C. E., Neuro-Surgery
Eques, M. S., Otolaryngology and Rhinology
Fitts, Jno. B., Internal Medicine
Greene, E. H., Surgery

Hodgson, F. G., Orthopedics
Holmes, Walter R., Gynecology and Female Urology
Jones, Jack W., Dermatology
Klugh, Geo. F., Clinical Pathology
Landham, J. W., X-Ray and Radium
Pruitt, M. C., Proctology
Thrash, E. C., Internal Medicine
Watts, C. E., Surgery

INTRACRANIAL TUMORS Charles Edward Dowman, M.D. Atlanta, Ga.

(Continued from December issue)

TUMORS OF THE PONTS: When one remembers the important structures which are in the pons it can be readily seen that tumors of this region are comparatively easy to diagnose. The pyramidal tracts course through the pons on either side somewhat anteriorly, while posteriorly the sensory pathways are found. The nuclei of the fifth, sixth, and seventh cranial nerves are likewise in the pons, the fibres descending to these nuclei having already crossed over from the opposite side. There also exist in the pons and the lower part of the crura the fibres which connect the nuclei of the third, fourth, and sixth cranial nerves, these connecting fibres constituting the so-called "posterior longitudinal bundle." Under normal conditions the eyes are maintained in a state of parallelism and move together when one looks in various directions. This condition is maintained by the posterior longitudinal bundle. Should a lesion sever the connection between the right sixth nucleus and the third nucleus of the opposite side, for example, the patient will be unable to look to the right on account of the disturbed innervation of the external rectus muscle of the right eye (VI. C. N.) and the internal rectus of the left eye (III C. N.)

The third nucleus under such circumstances may be intact, but the contracting influence from the right sixth nucleus is lost, thus upsetting the normal associated movements of the eyes to the right. A tumor of one side of the pons would cause the "Willard-Gubler Syndrome" (crossed paralysis). If, for example, the tumor were in the right side of the pons, the picture presented would be a paralysis of the right side of the face, a paralysis of the right fifth cranial nerve, an inability to look to the right, especially with the right eye, and a paresis of the left arm and leg. As the lesion becomes larger the remaining pontile structures will become involved with the corresponding extension of the clinical picture.

TUMORS OF THE CEREBELLUM: The cerebellum receives impulses (1) through the superior cerebellar peduncles from the cerebrum, (2) through the inferior peduncles from the skin, joints, and muscles, (3) through the middle peduncles from the nuclei of the cranial nerves, and (4) from the semicircular canals through the vestibular nerves and Deiter's nucleus (an accessory vestibular nucleus). The intracerebellar nuclei send impulses to the red nucleus, thus reinforcing the general tone of the muscles and aiding in coordinating the voluntary motor impulses coming from the cerebrum.

The cerebellum is thus the great center for coördination and equilibrium. This condition of equilibrium is carried on partly by the action of the cerebellar nuclei upon the red nucleus and the cerebral motor cortex, and partly by the influence of Deiter's nucleus on the spinal cord. It must be remembered that whereas the cerebellum is the central organ of equilibrium, the semi-circular canals are the peripheral organs of equilibrium. The latter are connected with the former by means of the vestibular portion of the eighth cranial nerve.

As the chief function of the cerebellum is therefore to synergize all movements of the body, a lesion of the cerebellum will cause a certain degree of loss of synergy (asynergy). As a general rule the asynergy is particularly of those limbs on the same side of the lesion, and the movements of the affected side are always exaggerated. For example, a patient with a right sided lesion, in performing a given movement of the right hand, such as putting the finger to the nose, will overshoot the mark. This is called hypermetry. The gait in cerebellar disease is reeling and often resembles that of a drunken individual. The station is impaired, the patient usually staggering in the direction in which the trunk is inclined to lean. The asynergia of cerebellar disease differs from the ataxia of *tabes dorsalis* in that the former is due to a disturbance of equilibrium (with or without closed eyes) while the latter is due to a loss of sense of position (made worse by closing the eyes).

Tumors of the posterior fossa may be within the cerebellum or extracerebellar. The symptoms of increased intracranial pressure are liable to occur very early in cases of cerebellar tumor on account of the early development of an internal hydrocephalus. When the tumor is in the cerebellum proper certain characteristic findings present themselves relatively early. These consist briefly of nystagmus, asynergia, decreased muscle tone, and weakness. The nystagmus is usually elicited by having the patient look to either side. It is usual to find that when the patient is looking toward the side of the lesion the nystagmus is of a coarse variety, whereas when he is looking away from the side of the lesion the nystagmus is of a fine type. This, of course, is not always true. The asynergia manifests itself in a reeling, drunken-like gait with the eyes open or closed, a failure to perform accurately certain movements such as touching the nose with the finger, thumbing the fingers, etc. The ipsilateral limbs are usually most markedly affected. When the patient walks or stands there is a tendency to lean or fall to-

wards the side of the lesion. The tendency to "overshoot the mark" when performing some of these tests with the ipsilateral extremities (hypermetry) has been mentioned. There is usually increased passive extensibility of the various joints of the ipsilateral extremities due to the ipsilateral hypotonia.

When the tumors are extracerebellar the cerebellar symptoms are slower in developing than when the tumor originates within the cerebellum. As a rule the intracerebellar growths are of rapid development and of a malignant character (glioma); whereas those tumors arising from the membranes are of a more benign character and are more slowly growing. One of the most common extracerebellar tumors is that which originates from the eighth cranial nerve (acoustic neurinoma) and is thus located in the angle between the pons and the cerebellum. The first manifestations of such tumors are tinnitus (noises in the ear) and vertigo. The tinnitus is on the side of the tumor and may be present for many years before other pronounced symptoms occur. On account of the close proximity of the fifth and seventh nerves, these structures sooner or later are pressed upon by the tumor, with resulting neuralgic pains in the face followed by decreased sensibility to touch and pin prick, and paralysis of the superficial facial movements. The hearing on the affected side is usually entirely lost. As the growth becomes larger there will develop the symptoms already mentioned as characteristic of cerebellar growths. They are produced by the pressure on the cerebellum by the tumor.

Before leaving the subject of subtentorial tumors, I wish to warn against the performance of lumbar puncture in such cases. The medulla under such conditions is already being pressed firmly against the bony ring of the foramen magnum and the withdrawal of fluid from below is liable to cause a herniation downward of this important structure, with immediate cessation of respiration and death.

TUMORS OF THE PITUITARY GLAND:
As the pituitary gland is an important gland of internal secretion, an appreciation of its function is important in the study of lesions of this particular structure. The gland consists of an anterior lobe, a pars intermedia, and a posterior lobe. The anterior lobe influences the growth of bones particularly. It is generally supposed that the posterior lobe has a definite influence over metabolism, especially carbohydrate metabolism. There is some doubt, however, in regard to the function of the posterior lobe as this structure is composed of nervous and not of glandular tissue. Many modern observers are inclined to consider the posterior lobe as a

rather inert structure and to attribute the various symptoms of hypopituitarism to hyposecretion of the anterior lobe and of the pars intermedia. The fact that pituitary extracts will stimulate contraction of involuntary muscle fibres has led to the belief that the substance responsible for this comes from the posterior lobe. As a matter of fact it may come from the pars intermedia. It is likewise possible that there may be certain centers in the floor of the third ventricle which regulate in a way carbohydrate metabolism and pressure from pituitary tumors may interfere with these centers, giving rise naturally to the conclusion that this disordered metabolism is due to a disturbed posterior lobe secretion. All of this, however, is but speculative. Certain clinical facts are known to occur when the pituitary gland is affected and it is of paramount importance to keep these facts in mind. Tumors of the pituitary gland give rise therefore to two distinct types of symptoms. In the first place there are certain manifestations of glandular dysfunction and in the second place when the tumor has reached sufficient size to press on neighboring structures there occur so-called "neighborhood" signs and symptoms.

Hyperplasia of the anterior lobe (adenoma) will cause certain characteristic changes in the bones. When the condition comes on before the union of the epiphyseal lines there will be an excessive growth of the shafts of the long bones, with the production of gigantism. Most of the giants of the circuses are cases in which there has occurred early in life a hypersecretion of the anterior lobe. If the condition occurs after the union of the epiphyseal lines the bony growth will be principally in the extremities of the long bones (acral changes) and in the bones of the face and skull. These changes give rise to the condition known as acromegaly, a picture when once seen will never be forgotten.

The symptoms of tumor of the pituitary gland which call for surgical intervention are the so-called "neighborhood" symptoms caused by pressure of the tumor. These are briefly: headaches which are usually bitemporal in location; visual disturbances due to pressure upward on the optic chiasm which causes usually a bitemporal hemianopsia when the pressure is directly upward on the center of the chiasm, or other types of visual field disturbance according to the direction of the pressure; primary optic atrophy; and X-Ray evidence of enlargement of the sella turcica. Should the tumor press upward sufficiently to compress the third ventricle there may develop an interference of the ventricular drainage with the resulting in-

creased intracranial pressure and its attending symptoms.

There occur at times so-called suprachiasmatic tumors which may produce neighborhood symptoms and glandular symptoms suggestive of primary pituitary growths. Such tumors are usually cysts of the cranio-pharyngeal ducts and frequently contain enough calcium deposit in their walls as to cause a shadow to be depicted on the roentgen plate. An early study of the visual field defects in such cases may cause one to suspect a suprachiasmatic growth, as the visual field defects will begin in the lower outer quadrant of the fields.

TREATMENT OF BRAIN TUMORS: The ideal to be attained in the treatment of brain tumors is naturally the removal of the growth. This, unfortunately, is possible only when the tumor is circumscribed and fairly well encapsulated. The question of the treatment, therefore, depends largely upon the type of tumor present and its location. The difficulty of predicting accurately the type of tumor before operation has already been discussed. The practice of putting such patients on prolonged antisyphilitic treatment on the presumption that the tumor may be of a luetic character should not only be discouraged but should be condemned, as not infrequently such a practice postpones relief of intracranial pressure until the eyes have undergone such permanent damage as to result in complete loss of eyesight. As the localization of tumors has become more accurate, practically all of the operations performed are planned so that the tumor can be exposed if possible, and if conditions permit removed either partially or completely. In other words the so-called preliminary decompression operations are now only occasionally performed. On the other hand, if the nature of the tumor as disclosed at operation demands a decompression, this is done at the time of the radical exposure. Several years ago the usual practice was to give the brain room in case of increased intracranial pressure by means of well placed decompression operations in order to conserve eyesight and relieve the other symptoms of increased pressure, and later to do a more radical procedure if the tumor could be located. The tendency to-day is to locate the tumor at the first operation if possible to do so, and to decompress as a feature of the radical operation, if such be indicated. Where all efforts at localization, however, have failed, the decompression operation may be done as a palliative procedure in the hope that further observation will give a localization permitting of a more radical procedure.

The technique of the various operations for brain tumor will not be discussed, as these procedures are fairly well described in most of the works on operative surgery. If the tumor is located in the cerebrum a liberal bone flap is laid down so as to expose the area suspected of being involved. These bone flaps should be so devised as to avoid interference with the circulation to the scalp flap overlying the bone. The hinge of the flap, therefore, is usually in the temporal region so that the temporal artery is not divided. Such a flap also has the advantage of permitting the removal of sufficient bone at its base to allow a liberal decompression under the temporal muscle if a decompression be indicated. The dural flap is usually made with the base upward, which likewise facilitates the combined decompression, as the lower part of the dura is left open for an area corresponding to the removed bone. At the end of the operation the dura is closed except as above indicated, the bone flap replaced and the scalp closed with fine interrupted silk galea and skin sutures. The control of hemorrhage in effecting such flaps is all important. The use of tourniquets is obsolete as they were never satisfactory. The temporal artery can be temporarily ligated by passing a cat-gut suture through the skin in front of the ear around the artery and tying it tightly. At the completion of the operation this is removed, or else so-called pedicle clamps can be placed under the base of the scalp flap in such a manner as to cut off temporarily the circulation. A most satisfactory method of controlling scalp hemorrhage is to catch the galea at distances of one centimeter with Kocher clamps and tie down the clamps in bunches of six to eight in such a way as to fold out the edges of the incised scalp. The use of Horsley bone wax in the control of bleeding from the bone is indispensable.

When the tumor is located below the tentorium the method of exposure is somewhat different. In children and in adults when the tumor is suspected of being near the midline a straight incision is made from the external occipital protuberance down to the spine of the third or fourth cervical vertebra. In adults where a wider exposure is desired the straight incision is combined with a cross incision extending between the posterior part of each mastoid region. The muscles are loosened from the underlying bone so as to expose the whole area of bone overlying the cerebellum and the spinous process of the second cervical vertebra. The bone overlying the cerebellum is completely removed. This should include the posterior arch of the foramen magnum and at times

the posterior arch of the atlas. The dura is opened widely with crucial incisions. This opening of the dura should be across the midline and well down into the upper part of the cervical canal. This latter is extremely important as the medulla is frequently shoved downward into the foramen magnum and should be thoroughly liberated. As tumors of the posterior fossa almost invariably cause an internal hydrocephalus, the posterior horn of one of the lateral ventricles should be tapped (at the beginning of the operation) with a ventricular puncture needle through a small occipital opening. The release of pressure in the ventricles will help to control troublesome hemorrhage which may complicate the exposure of the cerebellum. The closure is effected by means of numerous layers of muscle sutures without attempting to close the dura. It is thus seen that all cerebellar operations are, in addition to what might be done with the tumor, cerebellar decompressions.

Pituitary tumors may be approached either by means of an intracranial route after laying down a bone flap, or by means of a so-called transphenoidal approach. By this latter method the floor of the sella turcica is removed and the dura underlying the tumor incised. This permits the tumor to drop down toward the sphenoid cells, thus relieving the pressure upward on the optic chiasm. The operation is only applicable when the tumor is confined to the sella turcica and the sella is ballooned out, as it were.

Tumors of the third ventricle (pineal gland tumors, etc.) are approached through a lateral bone flap exposure so devised as to bring the longitudinal sinus into view. The cortical veins posterior to the Rolandic vein are doubly ligated as they leave the cortex to enter the longitudinal sinus. The lateral ventricle is punctured with a ventricular puncture needle so as to remove the fluid in the ventricle. This will permit the parietal lobe to be retracted away from the falx. The corpus collosum is thus brought into view, and its posterior half divided. In this way the third ventricle can be brought into view and a tumor so situated exposed.

Whenever it is possible to do so a tumor of the brain should be completely removed. Such a complete removal is usually possible in encapsulated tumors only (endothelioma). Pituitary, suprachiasmatic, and acoustic nerve tumors usually have to be enucleated intracapsularly, as the capsules are so intimately connected with blood vessels as to make an extracapsular enucleation unsafe. Such an intracapsular removal must therefore necessarily be incomplete. In the case of acoustic nerve tumors a recurrence can be

greatly delayed and possibly prevented by treating the inside of the capsule with Zenker's Solution, after the tumor has been removed. The problem in the case of glioma is quite a different one. These tumors are of an infiltrating character and can be seldom removed. The tremendous excision of whole lobes of the brain has been done by some surgeons, but the results hardly justify such a radical procedure. Often large quantities of a softened glioma can be scooped away and radium implanted. As a general proposition solid gliomas when exposed should be let alone, a liberal decompression done, and the patient subsequently given deep X-Ray treatments. Experience has shown that the lives of such patients can be prolonged many years when thus treated, and some may become permanently cured. The gliomatous cyst offers a better prognosis when properly treated: The very fact that a glioma has broken down into a cyst is an indication that the growth has a low vitality. Such cysts should be freely opened and the walls treated with Zenker's Solution. Should a "nubbin" of glioma project into the cyst it should be removed. It is advisable to supplement the operative treatment with subsequent X-Ray exposures. When tumors are located in the pons, peduncles, medulla, etc., naturally there is nothing to offer as far as operation is concerned. Such cases should be treated with X-Ray.

ABSCCESS OF THE BRAIN: Abscess of the brain is secondary, as a rule, to some local infection. Chronic suppurative infection of the middle ear is perhaps the most common cause, although occasionally a brain abscess complicates acute otitis media. When following ear infection the abscess is usually in the temporal lobe or cerebellum. The former site is the more usual of the two. The abscess may be between the dura and the skull (epidural abscess) but in such cases the abscess is not a true brain involvement. Infection of the various accessory sinuses (sphenoid, frontal, ethmoidal) may be the primary infection in brain abscesses. In such cases the abscess is usually located in the frontal lobe. Metastatic abscess of the brain may occur as the result of infections remote from the head. Endocarditis, pyemia, bronchiectasis, actinomycosis, amoebic abscess of the liver, etc., are some of the primary conditions which may be complicated by abscess of the brain. Occasionally a single abscess of the brain may occur without any demonstrable focus of infection. This was the case in a patient of my own, in whom there was a large single abscess of the left occipital lobe. Of course there was some source of infection in this case, but we

were unable to locate it. Brain abscess may also result from direct invasion through a compound fracture of the skull, infected indriven bone fragments, retained missiles in gun shot cases, etc.

The treatment of brain abscess involves certain fundamental surgical principles. Drainage of the abscess is of course the treatment indicated. The method of drainage is therefore a feature of great importance. A careful neurological examination in order to locate if possible the area involved is the first consideration. As the complications which are responsible for the death of most of these cases are meningitis and brain fungus, the method of drainage must be such as will prevent if possible these conditions. This can usually be accomplished if adhesions between the brain cortex and the dura are induced before free drainage is established, as otherwise the infection is liable to extend into the meningeal spaces with the production of meningitis. If the opening in the skull and dura is just large enough to permit the exploring needle and the brain is not allowed to escape, brain fungus will be prevented. The method of choice, therefore, is briefly as follows:

A small opening is made in the skull over that part of the brain suspected of being involved; a small incision is made in the dura, and the abscess is searched for with a ventricular puncture needle; as soon as pus escapes through the needle this should be withdrawn slightly so as to prevent the further escape of pus; the direction and depth of the abscess is now calculated and the needle withdrawn entirely; a small wick of rubber tissue is inserted down the track of the needle in the direction of but not into the abscess; and dressings are applied. After two or three days adhesions between the brain cortex and the dura will have been formed around the rubber tissue wick, thereby excluding the general meningeal spaces from the area to be drained. After this has been accomplished a small rubber tube drain can be safely substituted for the rubber tissue and placed into the abscess cavity so as to permit of free drainage. The drainage should be kept up until the abscess cavity has completely collapsed, and no further drainage occurs. This may take several weeks to several months before the drainage tube can be permanently withdrawn. The withdrawal of the tube should be done gradually by shortening it daily. A brain abscess should never be sought for or drained through an already infected mastoid operation area.

Proceedings of The Seventy-Sixth Annual Meeting of Medical Association of Georgia Atlanta, May 13, 14 and 15, 1925

(Continued from November issue, page 480)

MINUTES OF THE COUNCIL

THE CHAIRMAN: I will appoint the following gentlemen to serve as an Auditing Committee to go over the books of the Secretary-Treasurer: Dr. C. D. Welchel, Gainesville; Dr. M. M. Head, Zebulon; Dr. C. Thompson, Millen.

On motion duly seconded and carried the Council adjourned to reconvene at the call of the Chairman.

THE OTHER MEETINGS OF THE COUNCIL were not reported because they conflicted with the Scientific Sessions.

The second meeting of the Council was called to order on Wednesday, May 14, 1925, at 2:30 P. M., by the Chairman, Dr. V. O. Harvard, of Arabi.

The Secretary called the roll and the following Councillors responded:

First District—C. Thompson, Millen.

Second District—C. K. Sharp, Arlington.

Third District—V. O. Harvard, Arabi.

Fourth District—O. W. Roberts, Carrollton.

Seventh District—M. M. McCord, Rome.

Eighth District—H. M. Fullilove, Athens.

Tenth District—S. J. Lewis, Augusta.

Eleventh District—A. S. M. Coleman, Douglas.

(Dr. McCord left without making his report).

The Parliamentarian, Dr. Clark, and the Secretary, Dr. Bunce.

The following matters were considered:

1. Appropriation for Committee on Medical Defense, \$3,500.00 or what percentage is needed.

2. Committee on Health and Public Instruction,—no.

3. Cancer Commission, \$150.00,—no.

4. Committee on Medical Defense, E. C. Davis, four years.

5. Dr. Woods vs. Butts County Medical Society.

County Society erred—Dr. Woods erred, 1919, 1920, '21, '22, '23, '24, '25.

Committee to consist of Dr. Clark, Dr. Head and the new President. Letters to be written by Dr. Clark, Dr. Elrod and Dr. Head.

6. Reports from Councillors:

First, Second, Third, Fourth, Sixth, Eighth and Tenth District.

7. Report of Business Manager, Dr. Marion C. Pruitt.

REPORT OF BUSINESS MANAGER. (1924-1925)

During the year 1924-1925 we have published a 68 page Journal each month. The Journal has been published on a good quality of paper and has been mailed out each month regularly. Nineteen hundred Journals have been printed each month. Much time, work and patience have been spent by your Editor and the Publication Committee in selecting and editing the contents of your Journal. Much care has been taken in trying to keep the mailing list of the members of the Association up to date.

A Journal contains on the average about \$355.00 in advertisements per month. Of this amount approximately \$325.00 has been collected monthly, or \$3,900 during the past year. It has been costing about \$410.00 to publish the Journal each month. Therefore, during the past year the advertising department paid about three-fourths of the cost of publishing the Journal.

Each year we have bound in book form eight volumes of the Journal of the Medical Association of Georgia. The last issue of the Journal gives a complete directory number of our members for that year and a subject and author's index. When bound, each volume, or year, is a complete indexed book in itself.

A Few Suggestions for a Better Journal.

1. If you expect to receive your Journal regularly, it is absolutely necessary for you to notify the Business Manager when you do not receive it and of all changes of address, giving old and new addresses, stating county society of which you were a member. The paid up membership for 1925 is now 1467, which is the largest number paid up in the history of the Association at this time of year. In order that each member may receive his Journal regularly, we need your cooperation.

2. Lend your assistance in securing advertising by referring to ads in the Journal when ordering anything advertised in your Journal. Buy from book concerns and pharmaceutical houses which advertise in your Journal, or if they do not advertise suggest to their detail men that their business might be better if they advertised in the Journal of the Medical Association of

Georgia. Pharmaceutical preparations advertised in your Journal have been passed on by the Council on Pharmacy and Chemistry and are, therefore, standard and reliable products. Other ads are censored very closely before acceptance. So you are safe in recommending any article or preparation advertised in your Journal.

3. When soliciting a member for your county medical society, first be sure that he is suitable material for membership, and then do not be content with telling him it is a good thing and that he should come in. Stop, take time, and explain that the county medical society is the unit of all medical organization. You cannot become a member of the Medical Association of Georgia without first being a member of your county society. You must be a member of your State Association, and your State Association is a component part of the A. M. A. Therefore, you must be a member of the State Association before you can become a member or a Fellow of the A. M. A. The fact is you are nothing in the medical world, and can't be anything, until you become a member of your county medical society and State Association.

4. In recommending and making insurance appointments, etc., one of the first questions asked is, Are you a member of your county and state societies? By being a member of your state association you receive the Journal, which is a 68 page monthly publication, owned and controlled by its members, and a publication which is a credit to any state association in the union. And as a member of the Medical Association of Georgia you receive the full benefit of the medical defense feature which protects you against malpractice suits. If this is not effective it is time to take stock of ourselves and see if our county society is a worthy example. In most doctors there is something good and the reason you do not like Bill Jones is because you do not know him. Note what he has to say in the Journal. Go with him to your county, district and state medical meetings and learn to know him as a brother. You will soon find that there is some good in the worst of us.

5. I cannot emphasize too strongly the importance of members throughout the state sending in news items for publication in the State Journal. These items are of great interest to the rank and file of the profession and they are constantly on the lookout for them. They have proved of so much interest until the first thing looked for by a reader are the news items.

Respectfully submitted,
MARION C. PRUITT,
Business Manager.

On motion duly seconded and carried the report was accepted as read.

FRIDAY, MAY 15, 1925.

The first meeting of the new Council was called to order at 1:45 P. M., by the Secretary, Dr. Allen H. Bunce, Atlanta.

DR. BUNCE: This is the first meeting of the new Council for 1925-26, and the first business of the meeting is to elect a Chairman of the Council. I will now entertain a motion for a Chairman.

Upon motion duly seconded and carried Dr. V. O. Harvard, Arabi, was re-elected Chairman of the Council.

Dr. Harvard took the Chair and asked if there was further business.

DR. BUNCE: According to the By-Laws of the Association the Council is supposed to elect a Clerk.

Upon motion duly seconded and carried Dr. M. M. Head, Zebulon, was elected Clerk of the Council.

There being no further business at this time the Council adjourned at 2:00 P. M., to reconvene at the call of the Chairman.

FIRST DISTRICT

Membership Report Up To May 10, 1925

Counties	Members	
	1924	1925
Bryan (Goes with Chatham).....		
Bulloch-Candler	21	26
Burke	16	16
Candler (Bulloch)		
Chatham	69	64
Effingham (Goes with Chatham)		
Evans 100% (In 1924 with Tatnall)		6
Jenkins	3	4
Liberty (1925 Tri County).....		
Long (1925 Tri County).....		
McIntosh (1925 Tri County).....		
Screven	8	11
Tatnall (1924 Tatnall Evans).....	13	6
Tri County (Liberty, Long and McIntosh Cos.)		
1925 dues not sent in.		
Total.....	130	133

The District is in good shape. The mid-summer meeting was held in Savannah and was well attended. The mid-winter meeting was held in Sylvania and was also well attended.

CHAS. USHER,
Councillor, 1st District.

SECOND DISTRICT

Every County in the Second District is organized with one exception: Baker County has but three physicians, one of whom is a member of his most convenient Society. Have endeavored to get the other two enrolled in their nearest county but have failed.

In the District there are 154 physicians eligible to membership with 119 of these enrolled.

Throughout the District there is an increase of ten members over last year. Five members have located out of the District; four out of the State and one of these in the Third District this State. One death has occurred, Dr. W. J. Jenkins, a valued member of the Thomas County Medical Society, and a man of sterling qualities. Two men have moved into the District the past year, both affiliated.

Most of the counties have shown more or less activity, while others, formerly active, are apparently dormant.

I have not made official visits to all the Counties as required. My work has been accomplished through correspondence. My reason for not making official visits is that I never know when a Society meets, or, when I can be present at a meeting when a representative number is present. Would suggest, in this connection, that the Secretaries notify the Councillor when his annual visit is desired, and on this occasion have a full attendance of the membership present. This is the only way the Councillor can come into intimate contact with the men, to judge as to activities, and to advise means for the betterment of conditions if needed.

Colquitt County reports a fine spirit of fellowship existing, with regular monthly meetings, good papers and discussions.

Deeatur-Seminole reports a better spirit of fellowship and cooperation than in the past.

The Secretary of Dougherty County says that "there is not a cleaner 'bunch' in Georgia. The hospital staff and the County Society meet jointly every month at the Hospital. Papers of interest are presented every month with free discussions. The Medical, Surgical and Dental clinic for underprivileged children maintained by the

Kiwanians, is conducted by members of the Dougherty County Medical Society who give unstintingly of their services. Four hundred of these children were treated last year with excellent, and with no doubt results that will be far-reaching. Work of this kind can not do otherwise than bring about a fraternal and cooperative spirit among doctors." Dougherty County is the banner county of the District. Every physician in the county eligible to membership and every one a member.

If Grady, Worth and Mitchell are active, they have failed to mention it in their reports.

The Tri-County Medical Society (Calhoun, Early and Miller) has a meeting every two months with interesting papers and discussions, and the fraternal spirit is good, but the attendance for some reason has fallen off.

Thomas County reports an excellent spirit of fellowship and cooperation among its members.

May I again urge the officials of the various County Societies to hold their annual meeting and elect officers in December without fail and forward a copy of his list of officers and members to the Councillor with all data pertaining to the Society. This is but fair to the Councillor and will greatly facilitate his work. The holiday season is the best time to collect dues. To aid in getting out the physicians would suggest a banquet, quail supper or some kind of "eats." This always brings them out, and after they have had their "coffee," I mean sure enough coffee, they usually get liberal.

The following tabulated list shows the numerical strength of each County up to May 10, 1925:

	No. enrolled 1925	No. eligible not enrolled	No. enrolled 1924	Died	Removed	Newly located
Colquitt	10	6	6	0	1	0
Deeatur-Seminole	13	.....	10	0	1	0
Dougherty (100%)	15	0	13	0	2	1
Grady	10	3	8	0	0	1
Mitchell	10	3	8	0	0	1
Thomas	26	5	29	1	1	2

Tift	6	—	8	0	0	0
Tri-County	22	5	22	0	0	0
Worth	7	2	5	0	0	0

Baker—(No organization. Three physicians in county. One a member of Tri-County Society)

Total	119	24	109	1	5	5
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Respectfully submitted,

C. K. SHARP,

Councillor, 2nd District.

THIRD DISTRICT

Membership Report Up to May 10, 1925

County	1924	1925
Clay (affiliated with Tri and Randolph)		
Quitman (Affiliated with Randolph)		
Randolph (100%)	15	15
Stewart Webster	11	10
Sumter	16	19
Schley (Affiliated with Sumter)		
Macon-Taylor	11	11
Dooly	8	9
Crisp (100%)	18	18
Ben Hill	12	12
Turner (100%)	11	11
Terrell	10	9
Total	112	114

Respectfully submitted,

V. O. HARVARD,

Councillor, 3rd District.

FOURTH DISTRICT

Membership Report Up to May 10, 1925

Counties	1924	1925
Carroll	22	19
Chattahoochee (Not organized)		
Coweta	5	3
Harris (Not organized)		
Heard (Not organized)		
Marion (Not organized)		
Meriwether	7	10
Muscogee	40	34
Talbot	4	4
Troup	35	29
Total	113	99

The Fourth District shows a membership in 1924 of 113; and in 1925, 99, to-date.

There will be a number of others yet to pay their dues and become re-instated for 1925.

Carroll county stands at her normal point in organization. There are a few others who might finally become members. The Carroll County Medical Society attempts to meet regularly and to carry out a regular programme. A number of live meetings have been held during the year.

Coweta County. We have been unable to get a reply to any and every effort made to improve the conditions of organization in Coweta county. The doctors say they are not much interested in it. We hope to be able to improve our numbers here during 1925-26.

Heard County. There are only three physicians in Heard county who are eligible to membership. They are living so far apart that organization seems impractical. We have obtained the promise that they will meet once a year and elect officers and pay their dues beginning in 1925. We hope to see this much carried out.

Meriwether County. The Sec., Dr. Norman, moved to Columbus, which left the society behind 1924 in membership. With the help of Dr. Gilbert eight members are reported now, and we wish to add the name of Dr. J. W. Taylor of Luthersville, Ga., as an honorary member. This will show a membership of nine for this year and seven for last year.

As to Chattahoochee, Harris, Marion, Muscogee, Talbot and Troup counties, Dr. J. A. Thrash, Vice Councillor, will send a detailed report.

There is a live District Society in the Fourth. This society was re-organized in 1924 and a good program rendered. A committee has been appointed to arrange a program and other details for the next meeting, which will be held during the summer at LaGrange.

We hope to be able to do a better job in the Fourth District during the coming year, as the newness wears off.

Respectfully submitted,

O. W. ROBERTS,

Councillor, Fourth District.

COMMUNICATIONS

To the Editor:

At a meeting of the Walker County Society November 11, 1925, the following resolution was unanimously passed:

Whereas, Dr. J. P. Hunter, of Kensington, a member of the Walker County Medical Society, having been convicted in the Superior Court of Walker County of producing criminal abortion and fined \$1000.00, and he having accepted this as final, therefore, resolved: the Walker County Medical Society, having been convicted in the Superior Court of Walker County of producing criminal abortion and fined \$1000.00, and he having accepted this as final, therefore, resolved:

(1) That his name be stricken from the roll of members of the Walker County Medical Society, and

(2) That this Society recommend that he be expelled from the Medical Association of Georgia.

J. H. HAMMOND, Secretary.

BOOKS RECEIVED

RADIOGRAPHY, a Manual of X-Ray Technique, Interpretation and Therapy. By Charles D. Enfield, M. D., F. A. C. P., Roentgenologist to St. Anthony's Hospital and Norton Memorial Infirmary, Louisville, Ky. 194 Illustrations. Publishers: P. Blakiston's Son & Co., 1012 Walnut St., Philadelphia, Pa. Price, \$10.00.

THE THERAPY OF PUERPERAL FEVER. By Privatdozent Dr. Robert Koehler, formerly Assistant of the Gynecological Department of the Krankenhaus Wieden (Director: Hofrat Professor Dr. Josef Halban) in Vienna, Austria. American Edition prepared by Hugo Ehrenfest, M. D., F. A. C. S., Associate in Obstetrics, Washington University School of Medicine, Obstetrician and Gynecologist of the Jewish Hospital, Consulting Obstetrician to St. Louis Maternity Hospital, St. Louis. 27 Illustrations. Publishers: The C. V. Mosby Co., St. Louis. Price, \$4.50. A review appears in this issue.

BOOK REVIEWS

The Therapy of Puerperal Fever. By Privatdozent Dr. Robert Koehler, formerly Assistant of the Gynecological Department of the Krankenhaus Wieden in Vienna, Austria. American edition prepared by Hugo Ehrenfest, M. D., F. A. C. S., Associate in Obstetrics, Washington University School of Medicine, Obstetrician and Gynecologist of the Jewish Hospital, Consulting Obstetrician to St. Louis Maternity Hospital, St. Louis. With 27 illustrations. Publishers: C. V. Mosby Co., St. Louis.

I read with absorbing interest every page in Kohler and Ehrenfest's *Therapy of Puerperal Fever*. Kohler's experience has been a vast one and his interest in the condition has been sustained over a period of years.

If the book could be read by every doctor that does obstetrics, he could not fail to be impressed with the utter futility of any curative treatment for puerperal fever. As Little, of Montreal, stated in a personal communication to the reviewer, in writing of the condition, "Its dangers should be cried from the housetops, and where it does occur there should be a search for possible personal responsibility."

J. R. McCORD.

Radiography. A Manual of X-Ray Technique, Interpretation and Therapy. By Charles D. Enfield, M.D., F.A.C.P., Roentgenologist to St. Anthony's Hospital and Norton Memorial Infirmary, Louisville, Ky. 194 Illustrations. Publishers: P. Blakiston's Son & Co., 1912 Walnut St., Philadelphia, Pa.

A very considerable number of medical men, not roentgenologists, are finding it worth while, or necessary to do some or all of their own X-ray work. This book has been written for men so situated. It considers apparatus in a general way, without bias of any kind. It gives in such detail as to be perfectly intelligible to the novice, one good technic for each of the ordinary routine examinations. It deals briefly with the interpretation of the commoner lesions, emphasizing the rule rather than the exception. Illustrations have been chosen with the same criteria in mind. In the case of reproductions from X-ray films, such films as the physician is most likely to encounter in his daily run of work have been selected.

With regard to technic: The most advanced procedures which have become accepted as standard have been described. Certain technical developments which at the time of writing seem to bid fair to be adopted generally by the profession, but which are not as yet universally accepted, notably an extremely rapid technic in the radiography of moving parts, as the chest, heart, gall-bladder, and intestinal tract, have been mentioned in some detail, although other and older methods

have been given as standards. In discussing choice of equipment, the reasons for selecting or rejecting various types of equipment and various types of installations are stated fully, always with the needs of the general practitioner chiefly in mind. It gives specific and detailed technical directions for the performance of all the routine X-ray examinations, including exposure data, placing of the patient, and all other pertinent details. Illustrations show the apparatus and the patient in proper relationship for each of the commoner examinations. The interpretation of X-ray evidence of all the more frequent lesions is gone into fully and illustrated by films showing typical X-ray findings. The newer developments in technic such as tetraiodophenolphthalein visualization of the gall-bladder and the high milliamperage technique for examination of the gall-bladder, chest and gastro-intestinal tract are described fully and in detail. Treatment is discussed in a general way rather briefly, and specific instructions, including treatment factors, are given for many of the conditions amenable to X-ray treatment.

MERCURIAL INUNCTIONS

When routine courses of mercury in the treatment of syphilis are entrusted to the patient, to be reported of course at suitable intervals, the mercurial preparation that now enjoys the highest favor is a carefully prepared ointment. The stomach of the patient is thus spared, and it is not a difficult matter to push the inunctions to the verge of toleration, thus obtaining the full mercury effect.

But most mercurial ointments are greasy, messy and ill-flavored. Moreover, unless they are put up in capsules or otherwise in individual doses, the amount of mercury administered can only be determined by reference to the reduction in the size of the bulk package, or to the number of bulk packages used. These considerations account, we believe, for the professional popularity of cacao-butter blocks containing a definite grainage of metallic mercury.

Blocks of this description, called *Mercurettes*, are manufactured by Parke, Davis & Co., and supplied in packages that can be conveniently carried in the pocket. Each *Mercurette* contains 50 grains of metallic mercury, evenly distributed throughout the vehicle, and is doubly wrapped—in tissue and tinfoil.

TRUTH ABOUT MEDICINES

The following articles have been accepted:

- E. R. Squibb & Sons:
 Rabies Vaccine—Squibb Semple Method 14
 Dose Treatment.
 Eli Lilly & Co.:
 Antistreptococcic Serum.
 Normal Horse Serum.
 Pertussis Vaccine.
 Pneumococcus Vaccine Prophylactic.
 Staphylococcus Aureus Vaccine.
 Staphylococcus Vaccine.
 Streptococcus Vaccine.
 Vaccine Virus.
 Parke, Davis & Co.:
 Corpora Lutea Desiccated—P., D. & Co.
 Capsules Corpora Lutea Desiccated—P., D. & Co., 2 grains.
 Capsules Corpora Lutea Desiccated—P., D. & Co., 5 grains.
 Tablets Corpora Lutea Desiccated—P., D. & Co., 2 grains.
 Tablets Corpora Lutea Desiccated—P., D. & Co., 5 grains.
 Swan-Myers Co.:
 Sterile Ampules of Mercury Oxycyanide, 0.008 Gm.
 Sterile Ampules of Mercury Oxycyanide, 0.01 Gm.
 Sterile Ampules of Mercury Oxycyanide, 0.016 Gm.
 Nonproprietary Articles:
 Tetrabromophthalen Sodium (formerly called Tetrabromphenolphthalein Sodium.)
 Tetraiodophthalen Sodium.

New and Nonofficial Remedies

Normal Horse Serum (New and Nonofficial Remedies, 1925, p. 329). Marketed in packages of one syringe containing 10 Cc.; also in packages of one cial containing 20 Cc. Eli Lilly & Co., Indianapolis.

Pertussis Vaccine—A pertussis bacillus vaccine (New and Nonofficial Remedies, 1925, p. 353), marketed in package of four 1 Cc. vials; in single 5Cc. vial packages; and in packages of four 1 Cc. vials. Eli Lilly & Co., Indianapolis. (Jour. A.M.A., October 10, 1925, p. 1137).

Schick Test-Gilliland—A diphtheria immunity test (New and Nonofficial Remedies, 1925, p. 369), marketed in packages containing one vial of diphtheria toxin, the amount being sufficient for fifty tests. Gilliland Laboratories, Marietta, Pa.

Corpora Lutea Desiccated—P., D. & Co.—The dried corpora lutea of cattle and swine. For a discussion of the actions and uses, see Ovary, New and Nonofficial Remedies, 1925, p. 251. The product is supplied in capsules containing five grains, and in tablets containing, respectively, two and five grains. Parke, Davis & Co., Detroit.

Streptococcus Vaccine—Lilly.—A streptococcus vaccine (New and Nonofficial Remedies, 1925, p. 359), marketed in single 5 Cc. vial packages and in single 20 Cc. vial packages. Eli Lilly & Co., Indianapolis.

Staphylococcus Vaccine—Lilly.—A staphylococcus vaccine (New and Nonofficial Remedies, 1925, p. 357), marketed in single 5 Cc. packages and in single 20 Cc. packages. Eli Lilly & Co., Indianapolis.

Staphylococcus Aureus Vaccine—Lilly.—A staphylococcus vaccine (New and Nonofficial Remedies, 1925, p. 357), marketed in single 5 Cc. vial packages and in single 20 Cc. packages. Eli Lilly & Co., Indianapolis.

Antistreptococcus Vaccine—Lilly.—An antistreptococcus vaccine (New and Nonofficial Remedies, 1925, p. 339), marketed in packages of one syringe containing 10 Cc.; in packages of one syringe containing 20 Cc.; in packages of one vial containing 30 Cc. Eli Lilly & Co., Indianapolis.

Pneumococcus Vaccine, Prophylactic—Lilly.—A pneumococcus vaccine (New and Nonofficial Remedies, 1925, p. 355), marketed in single 5 Cc. vial packages. Eli Lilly & Co., Indianapolis. (Jour. A.M.A., October 17, 1925, p. 1223).

Vaccine Virus—Lilly.—A vaccine virus (New and Nonofficial Remedies, 1925, p. 341), marketed in packages of one capillary tube and in packages of five capillary tubes. Eli Lilly & Co., Indianapolis.

Rabies Vaccine (Semple Method)—Squibb.—An antirabic vaccine (New and Nonofficial Remedies, 1925, p. 342), prepared according to the general method of David Semple (phenol killed). It is marketed in packages of fourteen syringes. E. R. Squibb & Sons, New York. (Jour. A.M.A., October 24, 1925, p. 1305).

Propaganda for Reform

Anacin—The Birth and Development of a "Patent Medicine."—Anacin is a patent medicine marketed by the Heidbrink Company, a dental supply house of Minneapolis. It is claimed for Anacin that it "Quickly relieves Headache, Toothache, Earache, Colds, Flu, Grippe, Neuritis, Neuralgia, Pains, Rheumatic Pain," and that "Doctors Recommend It." In 1920 the Heidbrink Company wrote to the Council on Pharmacy and Chemistry stating that the concern was considering the possibility of putting out certain medicinal preparations which it would wish the Council to consider. The firm did not submit any preparation to the Council, however. In 1922, Dr. F. W. Wittich of Minneapolis, sent two bottles of Anacin, one marked "Anacin spoiled" and the other marked "Anacin fresh," to the American Medical Association. The doctor gave the formula of the tablets, wrote that he had used it extensively, and asked for the cause of the spoilage. He was given this information. Recently the Heidbrink concern claimed that the formula for Anacin was worked out by Dr. Wittich and his associates at the University of

Minnesota Medical Department, where he had a professorship. (Jour. A.M.A., October 3, 1925, p. 1079).

Calcium Therapy in Tuberculosis.—The theory that tuberculosis is accompanied by, and perhaps dependent upon, a demineralization, and especially a loss of calcium from the body, has not been supported by the best controlled investigations. There is no acceptable evidence that there is any decrease in the amount of calcium either in the blood or the tissues in tuberculosis. (Jour. A. M. A., October 3, 1925, p. 1082).

Orargol Not Acceptable for N. N. R.—The Council on Pharmacy and Chemistry reports that Orargol (Anglo-French Drug Company) is stated to be colloidal suspension of silver and gold prepared electrically from an alloy composed of gold 10 per cent. and silver 90 per cent. On the basis of the available evidence the Council declared Orargol inadmissible to New and Nonofficial Remedies because the claims made for it are unwarranted and because it is an unscientific mixture. (Jour. A.M.A., October 17, 1925, p. 1241).

Possible Danger of Poisoning From Mercurochrome.—Sufficient evidence has been published to show that mercurochrome causes little or no gastro-intestinal disturbance until it has been taken in large doses for a week or more. In New and Nonofficial Remedies it is stated that no systemic effects have been observed following the local application of mercurochrome. This, together with the fact that the preparation is offered for lay use only in small packages of the solution, would seem to make the use of mercurochrome by the laity no more dangerous than that of tincture of iodine. (Jour. A.M.A., October 17, 1925, p. 1242).

Robinson's Pernicious Anemia Cure.—One W. A. Robinson of Sisseton, South Dakota, has been exploiting an alleged cure for pernicious anemia during the past three or four years. His statements regarding the cause and cure of pernicious anemia prove him to be utterly ignorant of medicine. Robinson charges thirty dollars for a treatment. From letters received from physicians it seemed that the main part of Robinson's "Cure" was coarse sand, and this is confirmed by the report of the A. M. A. Chemical Laboratory

OBITUARY

Little Virginia Anne Roberts, daughter of Dr. and Mrs. O. W. Roberts, Carrollton, after an illness of five months with acute nephritis, apparently primary, died November 25, 1925, at the age of two years, four months and twenty-one days. She was born on Independence Day, July 4, 1923, and was buried on Thanksgiving Day, November 26, 1925. Besides her parents she is survived by one sister, Sarah Alice; two brothers, Oscar William, Jr., and Cecil Alfred. Dr. Roberts is Vice-President of the Carroll County Medical Society and Councilor from the Fourth District.

Dr. Bertram H. Wagon, 259 East Tenth Street, Atlanta, died at a private sanatorium, Monday, December 7, 1925, at the age of 42. Dr. Wagon, who was the son of Mr. and Mrs. Millard Wagon, of Milledgeville, was born in Greene County, Georgia, January 19, 1884, but later moved to Milledgeville, where he was reared and educated. He was graduated from the Atlanta Medical College in the Class of 1911, after which time he began his practice in Atlanta. In 1915 he married Miss Mary Mildred Noble, daughter of Dr. George H. Noble, Sr., of the Noble Sanatorium, Atlanta. Dr. Wagon was a prominent religious leader, being Chairman of the

Board of Stewards of the Wesley Memorial Church. Last year he was admitted to the American College of Surgeons. He served as Second Vice-President of the Medical Association of Georgia during 1924-1925 and also represented the Fulton County Medical Society as Delegate at the last annual meeting of the State Association. He was a Shriner and a member of the Scottish Rite Masons. Dr. Wagnon was a recognized leader in medicine and his death was a distinct loss to the profession. Besides his wife he is survived by a son, George Noble Wagnon; a daughter, Mildred Lucy Wagnon; three brothers, John A., Leo. A. and Willard Wagnon, and a sister, Mrs. W. E. Barker, of Marion, Ala.

Dr. William Howard Felton, only son of former United States Senator Rebecca Latimer Felton, of Cartersville, died at the Harbin Hospital, Rome, following an illness of several weeks. His father, the late Dr. W. H. Felton, was Congressman from the Seventh Congressional District. At the time of his death Dr. Felton was Health Officer for Cartersville and Bartow County. He is an Ex-President of the Seventh District Medical

Association and represented the Bartow County Society as Delegate at the 1925 meeting of the State Association. Dr. Felton, who was 55 years of age, had lived in Cartersville all his life and was one of the outstanding members of his profession. Besides his mother and his wife, who was formerly Miss Retha Grimm, of Rome, he is survived by two children, William and Mary.

Dr. A. A. Smith, one of the best known and most popular physicians in the State of Georgia, died at his home in Hawkinsville, November 26, 1925, at the age of 79. He had been ill for several months. Dr. Smith was a native of Telfair County, having moved to Hawkinsville in 1870, where he practiced medicine for more than fifty years. He married Miss Elizabeth Hodge of Henderson, Georgia, in 1879. Dr. Smith held the honor of being the first doctor to hold the office of President of the Medical Association of Georgia. Besides his wife he is survived by seven daughters, Mrs. J. B. Glover, Savannah; Mrs. R. C. McIntosh, Quitman; Mrs. Kate Jelks, Mrs. M. F. Knowles, Mrs. R. W. Batts, Miss Faustine Smith and Miss Gladys Smith, of Hawkinsville.

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CLINICAL AND PATHOLOGICAL OBSERVATIONS ON ONE HUNDRED CASES OF GOITER*

Charles E. Waits, M.D., and R. S. Leadingham, M.D.

Atlanta, Georgia

The data presented in this paper represents some clinical and pathological observations on one hundred cases of goiter operated on during the past four years. These cases were selected from a group of two hundred and fourteen patients who consulted us during the above period because of actual or suspected thyroid disease. Fifty-one percent of these two hundred and fourteen patients were placed in the simple goiter class. We believe this figure represents about the average ratio between simple and other types of goiter seen in this section of the country.

The time allotted our paper will not permit a discussion of all the details in the histories of these patients, so we shall confine our remarks mainly to those points in the histories, physical and laboratory findings, which seemed to justify our diagnosis and treatment.

One's success in the management of thyroid disorders depends to a very great extent upon an ability to recognize the various types of goiter, and to know what to do after recognizing them.

We therefore wish to lay special emphasis upon the importance of properly classifying all thyroid patients before instituting treatment. Whatever classification one may choose to follow in grouping goiter patients, there will occur in one's individual ex-

perience a small number of patients whose proper place is not easily found. This difficulty may be encountered regardless of how painstaking one may be in his studies of such patients.

It now seems to be generally agreed among men of wide experience in thyroid disease that the majority of goitrous patients may be classified under one of three rather definite clinical types, namely: Colloid or Simple Goiter; Adenomatous Goiter, which may or may not be associated with a hyperthyroidism, and Exophthalmic Goiter. Occasionally we may see variations or combinations of these three types, but generally speaking such a classification serves well as a clinical basis upon which to group ninety-five per cent of all thyroid patients. In this series we have grouped our cases as follows:

1. Adenoma:
 - a. Without hyperthyroidism..... 14
 - b. With hyperthyroidism..... 41
2. Exophthalmic 36
3. Colloid (Degenerating) 7
4. Carcinoma 1
5. Tuberculosis 1

100

Before entering into a discussion of the above mentioned groups it may be well to explain our reference to certain physical and laboratory findings. No patient was regarded as having a tachycardia whose pulse

*Read before the Medical Association of Georgia, May 13, 1925.

rate did not average 90. No patient's metabolic rate has been recorded as being above normal unless it exceeded 110 or below normal unless it was under 90. Patient's blood pressure recorded as being above normal showed a definite and persistent increase of more than 10 m.m. at rest.

Adenoma Without Hyperthyroidism

Fourteen patients in this series were classified as having adenoma without hyperthyroidism. The average age of the group was thirty-nine and one-half years, the oldest being fifty-eight and the youngest nineteen. Except for two patients above age 40, the average age of the group would have been 29½ years, which figure is more nearly the average age at which this type of goiter is first noticed. There were thirteen females and one male.

Ten patients had a simple adenoma, while four had multiple growths. The average duration of the growth was 6 years. This point is insignificant, since a patient may have for many years a small tumor without knowledge of its presence, especially if the growth be so situated in the gland as not to cause pressure on the trachea or recurrent nerves.

Nine of the fourteen patients complained of pressure symptoms. Six exhibited evidence of nervousness and worry because of the presence of the tumor. Only one patient had an increased blood pressure. No patient in this group showed a plus metabolic rate. In two patients the rate was below normal, being minus 14 and 16 respectively.

Adenoma With Hyperthyroidism

Forty-one patients with an average age of forty-two were placed in this group. It may be of interest to mention the number of these patients seen in different decades. In the third decade 9, fourth 10, fifth 15, sixth 5, seven 2. Thirty-seven of the group were females and four were males.

A single adenoma was found in fifteen patients and multiple tumors were noted in twenty-six.

Knowledge of the presence of a tumor in the neck for a period of more than twenty years was admitted by three patients. Fifteen admitted a duration period of ten to twenty years, sixteen a duration period of

five to ten years, and only seven had had the tumor less than five years.

The most troublesome symptoms presented by patients in this group were as follows: Tachycardia or Palpitation 37, Weakness 37, Nervousness 41, Pressure 29, Nausea and Vomiting 3, Diarrhea 1, Dyspnoea 18.

The blood pressure was recorded as being increased in thirty-one patients. Normal in five, and decreased in five. Of the five whose blood pressure was decreased the evidence in the history, physical and laboratory findings, pointed to a rather mild degree of hyperthyroidism. Five patients in this group had a definite auricular fibrillation.

The basal metabolic rate was found to be increased in thirty-eight patients, ranging from plus 14 to plus 74. In only three patients was the rate above plus 50. Three patients had a normal rate. Of the three patients who had a normal rate, the correctness of the reading was questioned because of other positive findings in favor of a definite hyperthyroidism.

Two patients in this group were first classified as belonging to the exophthalmic type. Both were subjected to polar ligations without benefit, and both had Lugol's solution without improvement.

Not infrequently one sees a patient with toxic adenoma whose symptoms and physical findings so closely resemble those of exophthalmic goiter that it is almost impossible to differentiate them.

Pathology

In adenomatous goiter the enlargement of the gland is not usually uniform and is produced by the presence of one or more circumscribed nodules. Microscopically these are made up of small round follicles with rather large cuboidal cells and small lumens containing little colloid. Several of those examined had a dense lymphoid stroma that separated the acini into small groups. In one there were several lymph follicles and numerous large phagocytic cells within the lumen of the dilated acini that contained colloid.

This patient had never had any toxic symptoms but six years previously a similar growth had been removed from the other lobe.

Several glands showed a diffuse rather than encapsulated follicular hyperplasia. In those without thyro-toxic symptoms the type of cell forming the small acini remained the same, while in the frank toxic variety they were noticeably more columnar in type and possessed small deeply staining acini.

Exophthalmic Goiter

The average age of thirty-six patients in this group was 31. Eighteen were seen in the third decade, nine in the fourth, two in the fifth, one in the sixth, and six in the second. Thirty-two patients were females and four were males.

Some degree of thyroid enlargement was noted in the whole group. In eighteen patients the enlargement was marked and diffuse in character, while in the remaining eighteen only moderate enlargement was noted. Twenty-two patients in the group noticed the enlargement from 1 to 3 years before consulting us. Ten had knowledge of its presence for a period of 3 to 5 years, and three were not conscious of thyroid enlargement.

The outstanding symptoms complained of by all patients in this group were weakness, nervousness, palpitation, mental excitation and depression.

Twenty-one patients gave a history of having lost weight, from ten to thirty pounds. The loss of weight will usually vary according to the duration and severity of the hyperthyroidism.

Eleven patients had gastro-intestinal symptoms. Of the eleven six had nausea, three nausea and vomiting, and two had repeated attacks of nausea, vomiting and diarrhea.

Twenty-nine patients had increased blood pressure. An interesting feature of the blood pressure observations in this group was the almost constant finding of a high pulse pressure. Seven of the patients had a pulse pressure above one hundred. Of the seven two had a pulse pressure of 140 and 150 respectively.

Thirty-two patients had tremor, varying from a mild degree to extreme. Twenty-six patients presented exophthalmus or other eye signs suggestive of this type of goiter.

Neither of the two patients in whom we were mistaken in the diagnosis had exophthalmus, but showed a positive Stelwag.

The basal metabolic rate was recorded as being increased in the whole group, ranging from plus 16 to plus 104.

Twenty patients had a rate above plus fifty, and sixteen below plus fifty.

In any group of patients with exophthalmic goiter the average basal metabolic rate will probably exceed by seventy-five per cent the rate observed in other types of goiter.

The metabolimeter has been of great help in the study and management of these patients and we have come to feel that no thyroid study is complete without a determination of the patient's basal metabolic rate.

Sixteen patients in this group presented evidence of heart damage, varying from a slight systolic mitral murmur to marked hypertrophy, irregularity in action, auricular fibrillation and failing compensation.

It is often surprising to what extent, seemingly irreparable heart damage will improve following thyroidectomy in patients who have exophthalmic goiter.

Twelve patients showed evidence of a definite nephritis. The kidneys probably hold second place among the vital organs which suffer as the result of a prolonged hyperthyroidism.

Pathology

Grossly these glands are pale and firm, and the cut surfaces dense opaque and granular. The alveoli contain little or no colloid. The epithelium instead of being cuboidal in type, is more or less columnar and in the larger follicle is piled up in irregular papillary folds. Various modifications of this picture are found in the different stages of the disease, and in those cases where the colloid is more abundant it may be necessary to search thru several sections before the characteristic hyperplastic areas are found.

In one case of marked exophthalmus, the gland showed instead of the usual classical changes, a diffuse adenomatosis. The nodules were made up of small follicles of distinctly columnar epithelium, having a pale cytoplasm and small deeply staining nuclei.

Another showed a still more cellular structure and the presence of giant cells.

Colloid Goiter

In this group we have placed seven patients whose average age was twenty-seven. The average duration of the growth was six years. Marked diffuse growth was noted in four of the seven, while the remaining three had only moderate diffuse enlargement. All of the seven patients were females.

Three patients in this group presented a rather clear cut picture of hyperthyroidism, and resection of the gland was followed by sufficient improvement to justify operation, tho not as complete as one usually sees following operation for toxic adenoma or exophthalmic goiter.

The remaining four patients in this group were brought to operation after considerable delay and prolonged study in an effort to explain their symptoms, upon some basis other than thyroid pathology. A study of the tissue in each of these four cases did not reveal evidence of real pathology. Nor was there sufficient improvement in the symptoms of these patients to justify operation. We therefore admit an error of judgment in subjecting them to operation. However, we feel that our present impression of this type of patient will not permit a repetition of the error.

All of the patients in this group presented evidence of nervousness of some degree. Six complained of weakness. Five had tachycardia. Only two of the group had a definite increase in blood pressure. The basal metabolic rate was increased in all seven patients, ranging from plus 12 to plus 27.

Pathology

Colloid goiter is uniformly enlarged because of the distension of the follicles by colloid material. The gland is soft, the cut surfaces translucent and pale, except when it is the seat of calcareous or other degenerative changes.

Small isolated hyperplastic areas are often found in its substance and may be the remains of a previous activity or represent an effort on part of the gland to compensate for the failure of the rest to function.

In the minds of some of you the number of patients in this group may seem relatively

small since so many of the unusually large growths are regarded by some as being colloid in character.

It is true that in a great number of such growths an accumulation of colloid material in the acini is largely responsible for the enlargement, but in the majority of such cases we believe the factor which causes the patients to seek relief is the presence in the tumor mass of single or multiple adenoma with an associated hyperthyroidism.

Carcinoma

The one patient recorded as having carcinoma of the thyroid was a female, age 49, who entered hospital for operation with a clinical diagnosis of adenoma with hyperthyroidism. Malignancy was suspected at operation and a microscopic study of the tissue removed showed beginning scirrhus carcinoma.

Tuberculosis

The single case of tuberculosis of the thyroid was a colored female, age 28. Our pre-operative impression was that she had multiple adenomata with a mild hyperthyroidism. Small abscesses were found in both lobes at operation which were proven in the laboratory to be tubercular. The condition was later regarded to be secondary to a pulmonary infection.

In conclusion let us again stress the importance of recognizing and properly classifying the various types of goiter. It is a serious matter to sacrifice any part of the thyroid gland unnecessarily and equally as serious to temporize with or deny those patients surgery who need it.

Discussion on Paper of Drs. Waits and Leadingham.

DR. STEWART R. ROBERTS, Atlanta, Ga.: One point Dr. Waits made is rather new but is well worth while. We have seen two cases that have led us to believe that there is more to it than we have hitherto known. He made the point that there are some cases of adenomatous hyperthyroidism that can with difficulty be distinguished from exophthalmic goiter. This is probably true to a greater degree than we have hitherto realized. The tachycardia, the weakness, the nervousness, and even in the laboratory on section some of the slides show a kinship to exophthalmic goiter. Dr. Waits

called attention to the effects of hyperthyroidism, or of degenerative adenomatous hyperthyroidism, on the heart. There has been some feeling that the effects on the heart are due to the action of the increased thyroxin on the heart fibers. This is probably incorrect. The chief influence of the hyperthyroidism on the heart is the production of tachycardia. The heart is capable of power just so many beats, or has just so much to increase in the rate, and we may compare the goiter heart to an automobile in high speed. When the tachycardia occurs the patient gets the subjective palpitation for the thyroxin has stepped on the metabolic gas and the tissues go into high speed. The

heart, in turn, increases its rate. It goes on with the tachycardia above ninety until it can no longer keep this up and then it must leap over into sinus block, or auricular fibrillation, sino-auricular block and so on.

Let me call attention to the danger of giving digitalis in the cases with a tachycardia. In the Mayo Clinic Dr. Plummer has forbidden this entirely. In those cases in which we do not get the slowing down of the heart under Lugol's solution it is likely that we do not give enough. Dr. Plummer gives as much as fifty drops in the high cases of tachycardia. We have given fifty drops in an Ethiopian woman per rectum and she improved.

FURTHER OBSERVATIONS ON THE MANAGEMENT OF HEAD INJURIES*

J. Calvin Weaver, M.D.

Atlanta, Georgia

With the development of high powered, fast moving machinery and a simultaneous mental attitude of indifference in many owners and irresponsible drivers toward the safety and welfare of others, accidents apparently avoidable are rapidly increasing despite the combination of educational efforts of Safety Councils, expensive safety devices, and innumerable traffic laws.

On account of this rapid increase in accidents generally and an undue increase in head injuries in particular, injuries always with serious possibilities, it not only appears apropos but imperative that every helpful idea as to the correct classification and proper management of these cases should be reiterated until a thorough knowledge of this phase of surgery has become the common property of the profession at large.

Though Hippocrates, the Father of Medicine, revealed by his classification a remarkable familiarity with the varieties and clinical signs of head injuries and though his method of trephining was not unlike ours of today, the technique of opening the skull underwent little improvement until comparatively recent years.

Some of the fundamentals of operative indications were known during the Sixteenth

and Seventeenth Centuries but the outstanding mind after Hippocrates was John Hunter, who more than a century ago gave the following axioms that each of us would do well to remember.

(1) Fractures of the skull of themselves produce no symptoms respecting the brain, only those of broken bone.

(2) We do not trepan for concussion alone.

(3) In young people a depression fracture may give rise to no symptoms at the time but as the patient grows up bad symptoms may arise.

(4) In all cases of depression the trepan is necessary.

Later we find John Abernathy, a pupil and successor of Hunter advising against promiscuous trephining in cases of head injuries and by way of conservatism advising salines instead.

Though his suggestions were little heeded for more than a hundred years, they have finally come into their own by being perfected until they form the keystone in the arch of the accepted non-operative treatment of the largest classification of cases with which we have to deal.

*Read before the Medical Association of Georgia, May 13, 1925.

Though the fundamentals of head operations have been known for several centuries, the refinements of the conservative, non-operative management of the largest class of traumatic cases have been distinctly of American development. It was Harvey Cushing who gave us enlightenment on the subject of intracranial pressure. He also stimulated the experiments of Weed, McKibben, Foley and Putnam on hypertonic solutions that have placed the non-operative treatment of certain cases on a highly scientific plane.

From Cushing's experiments on intracranial pressure, we learn the following important facts:

(1) Under compression, the obstruction to the circulation begins at the venous side and extends backward toward the arterial side; the venous blood is kept inside the cranium and as the veins are the natural exit for cerebrospinal fluid, this in turn becomes stagnated and adds to the compression by the resulting hydrocephalus.

(2) After the veins are pressed empty, the capillaries and arterioles are gradually emptied, thereby bringing about anemia exactly at the moment when the force of the compression exceeds the blood pressure.

(3) The anemia in the medulla stimulates the vaso motor center which drives the blood pressure above the compression level. If compression pressure be elevated still higher, the same cycle is repeated until one of two results will ensue, either the compression is gradually lowered with an attendant and parallel lowering of blood pressure or the compression will continually increase until the vaso motor center is forced to give up the struggle and the blood pressure literally tumbles down in its lead to a fatal issue.

Paralysis of the cerebral cortex may be borne for a long period without direct danger to life, but a persistent anemia of the bulbar centers must lead eventually to death through paralysis of the vaso motor centers. Fortunately an anemia of the vaso motor centers immediately causes through the splanchnic vessels a rise in blood pressure sufficient to drive blood through the capillaries, thereby temporarily relieving the anemia and allowing time for dehydra-

tion that will prevent or clear up edema of the brain with its chain of symptoms from intracranial pressure.

How best to bring about the desired depletion or dehydration of the brain was the important problem to be solved, so experiments were made by the several investigators above mentioned to determine the preparation best suited for this purpose.

Weed and McKibben in studying pressure changes in cerebrospinal fluid in animals after intravenous injections of a hypertonic solution (30% sodium chloride) noticed that not only was there a marked fall in the spinal fluid pressure as shown by a manometer, but also that no fluid could be obtained from the subarachnoid space. This inability to recover spinal fluid from the subarachnoid space prompted observations by the same investigators on the effect of injections of hypertonic solutions on the brain. By injecting 30% solution of sodium chloride intravenously they found that there resulted a marked decrease in the size of the brain, as on opening the skull after such injection the brain would fall away from the inner surface of the skull; the brain was shrunken, the gyri more rounded and the sulci widened. From these findings it appeared that sodium chloride would give the desired dehydration.

Any preparation to be of practical value and universal use would best be given by mouth. At the suggestion of Cushing, Foley and Putnam undertook experiments to determine the effect of hypertonic solution of sodium chloride when given in the stomach, duodenum or rectum. They demonstrated a fall in spinal fluid pressure in each instance. On the strength of the above mentioned findings Dowman instituted in the Neuro-Surgical Clinic of Emory University School of Medicine a hypertonic solution treatment of certain cases of head injuries with brain damage, first using a saturated solution of magnesium sulphate by mouth, supplemented by a 30% solution of sodium chloride intravenously. Later a series of cases were given enteric coated tablets of sodium chloride.

Despite the fact that sodium chloride theoretically offered ideal results, some objectionable features became manifest so Temple

Fay made a study of an anesthetized dog to learn the comparative values of magnesium sulphate and sodium chloride for relief of intracranial tension. The loops of small intestine were tied off by a strong ligature and their distal ends ligated twelve inches from the original ligature. Equal quantities of a 30% solution of sodium chloride and 25% magnesium sulphate were introduced into the respective loops of intestine. Within three minutes the cerebrospinal pressure began to fall. In fifteen minutes the loops of intestines were drained and showed that the magnesium sulphate had drawn 72 c.c. of additional fluid from the animal's circulation while the sodium chloride had drawn only 37 c.c. additional fluid. It was noted that sodium chloride by the bowel was frequently accompanied by nausea and discomfort and that its effects were transitory and not so complete as those obtained by use of magnesium sulphate. Also after a certain amount of sodium chloride a tissue oedema appeared, followed by a secondary rise in intracranial pressure. An explanation of this phenomena lies in the fact that sodium chloride is dialyzable and is rapidly absorbed in the blood stream which in turn becomes hypertonic and extracts fluids from the tissue spaces.

Some of the salt is taken into the cells as fixed tissue sodium chloride eventually causing the cells to become distended with fluid. In contrast to this magnesium sulphate is non-dialyzable and exerts a constant effect on the vascular bed about the intestinal wall, withdrawing fluid from the circulation, with a secondary withdrawal of ventricular and tissue bound fluids and an attendant dehydration.

For this reason we have dispensed with the use of sodium chloride, except in special indications where quick though transient effects will suffice. Such an application of its use would be the introduction intravenously just previous to opening a tense dura in cases of brain tumor, thereby preventing a rupture of the cortex. It could also be used as an aid in closing a large flap in the presence of intense intracranial pressure.

As the possibility of magnesium sulphate

poisoning on account of the large toxic dose is very vague and as the symptoms rapidly clear up under intravenous injections of calcium chloride, there is little ground for fear of this complication.

Ampoules of fifteen grains of calcium chloride for intravenous injection are put up by several well known drug manufacturers.

With the series of cases to be presented none have shown any symptoms of magnesium sulphate poisoning.

It is believed that if the best results are obtained in the treatment of head injuries each case must be accurately classified and a certain treatment of that particular class of cases be instituted.

For the first one hundred and twenty-five cases reported in September, 1924, the classification adhered to was that as outlined by Dowman in 1922. The results have been so uniformly satisfactory in subsequent cases, that the same classification has been adhered to throughout.

To arrive at the proper classification, a routine study of each case is made as follows:

Spinal puncture for detecting blood in the spinal fluid; a manometer is used to show the spinal fluid pressure.

Blood pressure readings are made every fifteen minutes until the progress of the case can be accurately gauged.

Pulse, respiration and temperature are taken. X-ray studies of the skull are made, both a stereo and an antero-posterior flat plate. If patient is in extreme shock, treat shock first, then X-ray later.

A rough neurological examination is made, noting pupillary reflexes, deep reflexes, paralyses, convulsions or twitching of any group of muscles.

After such a study the case is placed in its proper class.

Along with a head injury, it frequently happens that the patient has lost a large quantity of blood or has sustained complicating injuries that have brought on prolonged shock, in which instance dehydration is contraindicated as the depletion of an already impoverished and failing circulation will bring about a fatal termination.

In shock, the respiration as a result of air hunger will be above the normal rate, the temperature below normal and the pulse rapidly rising; while in increased intracranial tension the respiration will be slowed to below normal and the temperature ascending with the pulse. In certain cases of profound shock showing rapid exhaustion of the medullary centers, though the prognosis is more discouraging, it may not be amiss in selected cases to follow the recent suggestion of Temple Fay and give small amounts of fluid intravenously in shock, at the same time doing repeated ventricular taps from the posterior horn of a lateral ventricle for intracranial pressure. If shock should be overcome, then dehydration by magnesium sulphate could be begun.

The series of cases to be presented covers a period of the last two and one-half years and are drawn from the Neuro-Surgical Clinic of the Grady Hospital, Emory Division, and from the private work of Dr. Dowman and myself.

The classification, the appropriate treatment, the number of cases of each class, with the results are as follows:

CLASS A. Massive brain injury, with evidence of rapid exhaustion of the medullary centers and death within one to several hours.

TREATMENT: These cases are hopeless and operation is contraindicated.

Cases 27, Operations 4, Deaths 27.

CLASS B. Definite evidence of meningeal hemorrhage.

TREATMENT: The operation of ligation of the bleeding artery with subtemporal decompression must be done quickly. As this operative interference is imperative, one must keep a clear mental picture of the cardinal symptoms as follows:

(1) A free interval of consciousness often of short duration. In children several days of consciousness have been known to elapse before pressure symptoms developed. On this account, children should be kept under close observation for several days where the type of injury would lead one to suspect the possibility of extra-dural hemorrhage.

(2) Slow bounding pulse following a slightly rapid and small pulse.

(3) Stertorous respiration as contrasted with the superficial respiration of cerebral concussion.

(4) The gradual development of hemiplegia or contralateral convulsions.

Cases 3 Operations 3, Deaths 0.

CLASS C. Simple or compound depressed fracture with localized brain contusion with or without indriven bone fragments.

TREATMENT: Debridement is indicated. Contused brain and blood clots are carefully removed by catheter suction. The dural opening is accurately closed if possible and the bone defect is partially restored by replacing previously removed bone fragments.

Cases 33, Operations 27, Deaths 1

CLASS D. Classic manifestations of rapidly increasing intracranial pressure which are well within the period of peduncular compensation.

TREATMENT: If the symptoms do not subside following an intravenous injection of sodium chloride, along with the internal administration of saturated solution of magnesium sulphate, then a subtemporal decompression with or without a rubber wick drain under the temporal lobe is indicated.

Cases 1, Operations 1, Deaths 0.

CLASS E. Definite evidence of brain injury exhibiting no classic findings of acutely increasing intracranial pressure, yet of the type that experience has shown is liable to develop gradually increased intracranial pressure due to fluid accumulation.

TREATMENT: This is the large class of cases previously referred to in which the hypertonic solutions are used with great success. In the large majority of this group it will suffice to give one-half ounce of a saturated solution of magnesium sulphate every two hours for forty-eight hours (smaller doses in proportion for children). The interval of doses is then lengthened day by day as the patient improves, until the seventh to tenth day, when the hypertonic treatment is discontinued. If despite the oral administration of magnesium sulphate there should develop any evidence of increased intracranial pressure such as bilateral choking, stertorous breathing, etc., this treatment may be supplemented by one intravenous injection.

tion of fifty cubic centimeters of a 20% sodium chloride solution for quick effect, followed two hours later by an intravenous injection of ten cubic centimeters of a 10% solution of magnesium sulphate. If, as in a few cases, the pressure symptoms continue and especially if a hemiparesis develops, then a subtemporal decompression with rubber wick drainage may be resorted to.

Cases 81, Operations 0, Deaths 1.

CLASS F. So-called concussion with no evidence of gross brain damage. After a few hours these patients are mentally clear and there are no frank findings.

TREATMENT: Physiological rest and free purgation suffices. If there is a residual vertigo following a blow on the head, it may often be relieved by repeated small doses, 1/96 grain, of perchloride of mercury.

Cases 16, Operations 0, Deaths 0.

CLASS G. Depressed fracture of a mild degree, giving rise to no symptoms whatsoever.

TREATMENT: Though many of these patients appear to be in excellent condition, we should follow the previously mentioned axiom of John Hunter as frequently there will be found underlying the depression much contused brain and blood clot. These fractures should be elevated, the dura opened, contused brain and blood clot removed by catheter suction, the dura closed, and the bone fragments replaced.

Cases 12, Operations 6, Deaths 0.

CLASS H. Scalp lacerations without damage to the underlying structures.

TREATMENT: Scalp injuries are generally treated too lightly. The edges should be trimmed and the wound carefully closed with fine silk sutures. Unless this is done, particularly if there is even a slight injury to the underlying structures, the condition enters immediately into Class A of causes of brain abscess as outlined by McEwen in his treatise on "Pyogenic Diseases of the Brain and Spinal Cord."

Cases 2, Operations 2, Deaths 0

The total number of cases in this series is one hundred and seventy-five with twenty-nine deaths.

It is encouraging to note that with the increase in number of cases, there has been a small percentage of decrease in the death rate. In the management of these cases, every effort was made towards a proper classification, while the above outlined treatments were rigorously adhered to. With increasing experience it is more and more evident that if these cases are to be given the greatest chance for recovery they must be carefully watched and studied with a view towards the proper classification. In this way only may we hope for the best results.

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Discussion on Paper of Dr. J. Calvin Weaver

DR. T. C. DAVISON, Atlanta, Ga.: I wish to know whether the operations were done under local or general anesthesia.

DR. J. CALVIN WEAVER, Atlanta, Ga., (closing): There were one or two points which were not mentioned in the paper because they were published just this week.

Regarding spinal fluid pressure and lumbar puncture, one author recently stated that no matter how high the intracranial pressure goes, if the neurological symptoms are rather vague no operation is indicated. We feel that a case of rapidly increasing intracranial pressure that can not be quickly controlled by intravenous injections of magnesium sulphate automatically goes into Class D, or rapidly increasing intracranial pressure cases, and should be given a subtemporal decompression with a small wick of rubber tissue under the temporal lobe. It is my experience that spinal fluid pressure is not a reliable criterion to go by. I recently saw,

in consultation, a case in which the blood pressure went from 140 to 190 in a period of approximately four hours, and in one and one-half hours had dropped from 190 to 148, and rapidly falling to 98 a short time before the patient's death. While the blood pressure was 190 the spinal fluid pressure registered only 8 m.g. of mercury which was slightly below normal. During this com-

paratively short interval in which the blood pressure rose to 190 this patient developed flaming hemorrhages of the eye grounds.

In reply to Dr. Davison, all of our operations on adults are done under local anesthesia, Novocain 1% and Adrenalin 5 minims to the ounce. I consider that local anesthesia in a great measure accounts for the good results we have had in this series of cases.

DIAGNOSTIC IMPORTANCE OF THE PYELOGRAM IN CHRONIC ABDOMINAL CONDITIONS*

Samuel J. Sinkoe, M.D.

Atlanta, Ga.

Since the introduction of pyelography by our European colleagues Voelcker and Lichtenburg, more thought and attention is being paid at present, to a correct understanding of obscure conditions within the abdomen, which heretofore have been either unrecognized or diagnoses incorrectly. As a result, the urologist has become an important factor in solving many of the problems which daily confront the other members of the medical profession, whether they be gynecologists, internists, general surgeons, or perhaps versed in some of the other special branches of medicine. The conscientious practitioner has learned that unless the abdominal symptoms of his patient are absolutely typical of a certain clinical entity, his diagnosis would be incomplete without a thorough study of the genito-urinary tract and the urological factors which may have a direct bearing upon the existing pathology. It is a well known fact that the application of pyelography has been of much practical value in a large number of urological conditions, of which we may mention stricture of the ureter, calculi, pyelitis, movable and ptosed kidneys, pyelo-nephritis, pyo-nephrosis, kinks and angulations of the ureter, tumors of the kidney and ureter, ureterocele, peri-renal abscess, congenital abnormalities, tuberculosis, etc. In bladder pathology, there may exist tumors, diverticuli, prostatic hypertrophy, calculi, tabetic

involvement, etc.. We can therefore see that the urological tract is subject to a variety of pathological conditions which produce symptoms, but how are these symptoms interpreted by the patient? Surely if they were all referred to the uro-genital tract, the correct diagnosis would comparatively be a simple matter, but in a large number of instances, the symptoms are referred to other abdominal organs, and our solution becomes rather a complex one. When we take into consideration, the relation of the component parts of the genito-urinary tract to the other abdominal organs, the importance attached to a careful examination by a competent urologist is readily seen. If we briefly review our anatomy, we will find the following: The right kidney is in close proximity to the liver, ascending colon, duodenum, inferior vena-cava, diaphragm, pleura, etc.; the left kidney is closely related to the stomach, pancreas, suparenal gland, meso-colon, spleen, diaphragm and pleura. The ureter which is approximately 15 inches long, and is closely related to many important structures, is also subject to many pathological conditions which might be incorrectly interpreted as diseased conditions of other abdominal organs. The nerves which originate from the sympathetic nervous system, are derived from the renal, inferior mesenteric, spermatic, ovarian, and hypogastric plexuses. Renner has recently shown that there is a reciprocal relation between the innervation of the renal system and the gastro-intestinal tract. Connection between the



Fig. 1. Pyelogram showing dilated ureter with Tuberculosis of kidney. Symptoms of backache, frequency of urination, pyuria, loss of weight and strength, etc., are often mistaken for some other condition.



Fig. 2. Pyelogram showing a large poly-cystic kidney. This condition simulates a chronic nephritis, and with its vague pains, is difficult to diagnose without a pyelogram.

splanchnic nerve and renal plexus is very distinct on the left side, and in addition, the renal and spermatic plexuses are directly connected. There is also a close relationship between the renal and celiac ganglia. Because of this anatomical association, the clinical signs in many cases might be very obscure and misleading, and cause errors in diagnosis, with the result that many ineffectual abdominal operations have been performed, the symptoms being subsequently relieved by appropriate treatment of the genito-urinary tract. This illustrates the importance of closer co-operation between the urologist and other members of the profession.

Among the abdominal conditions most often confused with lesions of the genito-urinary tract, may be mentioned:

1. Acute and chronic appendicitis.
2. Gastric and duodenal ulcer.
3. Cholecystitis, gall-stones, etc.
4. Post-operative adhesions.
5. Diseases of the liver.
6. Diseases of the spleen, sigmoid and descending colon.
7. Abdominal tumors.
8. Inflamed retro-peritoneal and mesenteric glands.

In the pelvic organs we may have:

1. Adhesions from an inflamed tube.

2. Tuberculous adnexa.
3. Malignancy.
4. Ovarian cyst.
5. Tumors of the ovary.
6. Physiological conditions, e.g. pressure upon the ureter by the pregnant uterus, etc.

In consideration of the facts just mentioned, the importance of a complete urological examination is readily seen. However, one must be aware of the fact that lesions may be present in the above named organs which cause symptoms that are referred to the genito-urinary tract, although the latter be entirely free from disease. It is also possible to have simultaneous conditions in the genito-urinary tract and other abdominal organs, which necessitates a very careful examination by an internist in addition to a careful urological examination. Although much can be written regarding the referred symptomatology of the diseases which I have just enumerated, I will confine my remarks mainly to a brief description of those conditions which more often cause confusion, i.e. the differential diagnosis between stricture of the ureter and acute or chronic appendicitis, and the close relationship that exists between the symptomatology of urological and gastro-intestinal diseases, and also a proper understanding of the referred symptomatology of pelvic pathology.

Of late, much has been written regarding ureteral strictures, particularly its relation



Fig. 3. Calculus in lower segment of right ureter, causing symptoms simulating chronic appendicitis, removed in one cystoscopic manipulation.



Fig. 4. Pyelogram showing stricture of ureter. The abdominal symptoms in these cases are often misleading and demand proper urological procedures.

to chronic appendicitis. From a study made of 25 cases, in which 5 were women and 20 men, the following symptoms predominated: nausea, restlessness, pallor, loss in weight, loss of appetite, backache, abdominal distress and pain more often localized in the lower right quadrant. Frequency of urination, nocturia, dysuria, and haemeturia, either singly or combined, was present in many cases. In 14 cases there was a trace of albumin, and the specific gravity was within normal limits. No cases showed casts, 15 showed pus cells microscopically and 10, pus cells and red blood cells. The general health was poor in 5 and fairly good in 20. In 9, the onset was sudden; gradual in 14, and indefinite in 2. The temperature in nearly every case was elevated. Stricture of the right ureter was present in 11; in 9 cases, the left ureter was affected, and in 5 there was stricture of both ureters. In one case, the stricture was associated with a calculus. The bladder was normal excepting 10 cases which showed a moderate cystitis. In 7 cases, the diagnosis was confirmed by the ureteral catheter, and the remainder by X-ray examination. Treatment consisted of ureteral dilatation every two weeks, and the installation of a 1% silver nitrate solution into the kidney pelvis. All patients were greatly improved, 5 being completely cured. There were no complications and no recur-

rence of symptoms. In only two, an occasional attack of pain persisted.

The urologist has shown the necessity of a careful urological examination in these cases, particularly when an operation is advised and has demonstrated conclusively why the same pre-operative symptoms recur following an appendectomy. I am not referring to the typical text book picture of acute appendicitis, but to the vague chronic abdominal pain and distress that we see in patients who have had laparotomy scars as a result of previous operations. To quote Hunner, "The chief aids in the diagnosis of ureteral stricture are attacks of intermittent pelvic pain, usually attributed to pelvic and ovarian disturbance, backache and bladder symptoms. As a rule pain can be elicited at a point, one inch to one side and below the navel." Hunner also states that in 35 cases of pyelitis of pregnancy, ureteral stricture was present in all but one, the only treatment being ureteral dilatation to allow better drainage. Of course it is possible for tuberculous adnexa and malignancy to cause ureteral stricture, and in this case treatment should be directed toward the seat of origin. One must also remember that an appendiceal abscess may encroach upon and involve the ureter, causing typical symptoms of renal and ureteral colic. An inflamed appendix may simulate a peri-nephritic abscess and vice-versa. Many other illustrations can

be described, but the chief problem that concerns us, is to determine whether the genito-urinary tract is affected or not.

To the gastro-enterologist, are referred many patients with chronic abdominal complaints, whose symptoms are rather hazy, and who are very slow to respond to treatment. These patients should receive a careful urological examination, for in many cases the gastro-enterologist in the course of his X-ray examination, will accidentally discover renal, ureteral or vesical calculi. At times, these calculi may be overlooked because of a barium-filled duodenum or when some other portion of the intestinal tract is filled with the opaque medium. That the symptoms of renal, ureteral or vesical calculi are referred to the gastro-intestinal tract, is due to the fact that there is a connection between the renal spermatic and ovarian plexuses on the one hand and the gastric and splanchnic plexuses on the other. Only recently, a patient was referred to me by one of our gastro-enterologists, for the removal of a calculus from the lower portion of the left ureter. The patient's chief complaint was vague abdominal pain and dull pain in the back. A patient with a pus kidney may complain only of dyspepsia and occasional chill, which he will attribute to attacks of malaria, and consult a stomach specialist. On the other hand, renal and ureteral pathology may produce symptoms which may simulate gall stones, or gastric and duodenal ulcer. X-ray shadows of gall stones may at times cause some confusion, but a differentiation can as a rule be made by comparing the size of the shadows on the posterior, anterior and anterior-posterior views, noting the density of the shadows and the location. The lateral view may assist in showing the stone shadow anterior to the gall-bladder or posterior to the urinary tract.

Occasionally, para-renal tumors, i.e. tumors that originate primarily in the fatty or fibrous capsule of the kidney, may invade the peri-renal bed or the retro-peritoneal space. These tumors which are composed of connective tissue may attain considerable

size and are often confused with tumors of the pancreas and omentum or with a cyst or tumor of the ovary.

Pyelography also plays a very important part in the practice of gynecology, and in order to establish a correct diagnosis, thorough urological examination should be made. It is surprising to know that practically 15% of gynecological patients have some lesion in the uro-genital tract, one of the most frequent occurrences being a pyelitis. As a result, afternoon clinics devoted entirely to female urology, have been established in our urological institutions, most of the patients having been referred from the gynecological department. Aside from pyelitis, stricture of the ureter and calculus are common findings. In most cases, pyelitis will be found to be associated with ureteral stricture. Although it is possible for pelvic conditions to produce symptoms that are referable to the genito-urinary tract, the urologist must determine whether the latter is involved. At times a ptosed kidney may be mistaken for a pelvic tumor, and a large ovarian cyst may resemble a hydro-nephrosis. The pregnant uterus may exert pressure upon the ureter with resulting complications.

Recently, many papers have appeared in the current literature describing the value of urological examinations in children. As a result, many interesting pathological conditions have been uncovered which would have been impossible to be diagnosed otherwise.

We can therefore see that pyelography plays an important part not only in urological conditions, but also in differentiating between pathological conditions of other abdominal organs. In making a pyelogram, it is important that the operator be well versed in the technique of pyelography and also to be able to interpret correctly the X-ray findings. In a recent article in the Journal of the Medical Association of Georgia the writer in an article entitled "The Diagnostic Importance of the Pyelogram in Urological Conditions," emphasized the following points:

1. Sodium Iodide as the opaque medium has proven non-toxic and gives a clean cut picture.

2. The medium injected must be warm.

3. Strict asepsis in all details must be employed.

4. Strict care must be taken not to over-distend the pelvis. As soon as the patient complains of pain, the injection must be stopped.

5. In cases of hydro-nephrosis, allow the catheter to drain off as much of the fluid as possible before injecting the medium.

6. After the pyelogram has been taken, allow the catheter to remain for some time to promote better drainage. Using a small suction apparatus as advocated by the writer will hasten the process.

7. Make use of a small catheter not over a No. 5, so as to get a return of the fluid, should too much be injected.

8. If possible, try to have the X-ray machine in the same room where the pyelogram is to be done, as moving the patient about after being catheterized will cause trauma.

9. Remember that pyelography as well as any other instrumental manipulation has its contra-indications, of which we may men-

tion, the aged and infirm, presence of fever, excessive bleeding from either kidney, and when no urine appears after catheterization which means failure of kidney to function, provided the catheter is patent.

In conclusion, allow me to stress the importance of a thorough examination in patients suffering from persistent abdominal pain or distress, and by a thorough examination, I mean to include a complete urological investigation. Only in this way, will we be able to apply correct therapeutic measures and obtain the gratifying results which we aim for.

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DERMATOPHYTOSIS*

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The selection of the above title is made from numerous names given the same clinical condition. The literature is filled with names given the mycotic infections of the skin, such as parasitic dermatitis, epidermophytosis trichophytosis, parasitic eczema, etc. Names denoting only one organism as responsible for this condition should be eliminated.

Discussion of the above title before this body should be of general interest. To the southern dermatologist and practitioner interested in skin conditions, this subject is of primary importance as this condition is probably the most common of all skin conditions with which we have to deal, particularly in the spring and summer. If in general physical examinations in this locality, my-

cotic infections were looked for, the percentage of population so infected would in my opinion be astounding. Hazen gives the the occurrence as 10% of the total patients seen in his practice. Disability varies from 2% to 10% according to replies to a questionnaire sent to leading dermatologists in this country by this author. In his practice it was 30%. In my office practice the diagnosis of dermatophytosis is made in practically 25% of the total patients seen. The frequency of this condition can be partly appreciated by asking your friends how many of them have the toe itch in summer. Due to our imperfect methods of diagnosis there are numerous cases of this infection which are never so diagnosed.

The history of this condition is indeed a most interesting one. Most of the earlier

*Read before the Medical Association of Georgia, May 14, 1925.

writers in dermatology describe a condition which they speak of as eczema, but differing from the usual type in its sharp definition, and its response to antiparasitic ointments. The mycoses were known even as far back as Hebra and Kaposi. Hebra being the first to describe *eczema marginatum*, Hans Hebra, in 1881, has described a parasitic eczematous eruption accompanied with weeping and crusts and very chronic. He treats it with Wilkinson's sulphur ointment or pyrogallie acid and follows this with salicylic acid. Crocker definitely describes and names an *eczema parasiticum*, which coincides with what we know to be the eczematoid type of dermatophytosis. Although admitting that he could not demonstrate the parasite, was able to clear up the condition with sulphur ointment.

Previous to Sabouraud's classical researches, ringworm was generally thought to be due to one fungus. Sabouraud, in 1892, definitely established the multiplicity of fungi found in ringworm and gave us a classification of the various organisms found. Since this work numerous authors have added to this classification, until at present the list of the various fungi implicated is a very long one. Drs. White and Greenwood have classified this condition clinically in six types, viz: (1) the macular or eczematoid type, (2) the vesicular or dyseidrotic type; (3) macerated type; (4) hyperkeratotic type; (5) the papular or lichenoid type; (6) infection of the nails. This seems to me the most satisfactory clinical classification that has yet been brought forward, and one in which practically all cases of dermatophytosis can be placed. Ringworm of the scalp and *sycosis barbae* are purposely eliminated in the following discussion:

Diagnosis

When we consider the question of diagnosis in this condition I am becoming more and more convinced of the value of close clinical observation and training. The laboratory is of aid in making a positive diagnosis in dermatophytosis, but as is the case with the Wassermann reaction in some cases of syphilis, when we need help the most for diagnosis, we are unable to find

the organism culturally or microscopically. In this locality in considering an eczema it is imperative to keep in mind its probable parasitic etiology. The sites of predilection for the mycotic infections are the feet; between the toes, bottoms of the feet and just below the ankle; the hands; palms, sides of the fingers and backs of the hands. The groin and around the rectum, more rarely the buttocks, the axillae and other parts of the body. Practically generalized cases of dermatophytosis are not common, but they do occur. I have had a number of such cases in my private practice. At this point let me say that in my opinion the majority of cases of pruritus ani, scroti and vulvae in this locality are caused by fungi. I hope to do some work in the near future to substantiate this opinion. The acute outbreaks of dermatophytosis are usually manifested in the spring, summer and fall, but are not entirely limited to these seasons, as numerous cases are seen throughout the winter. What we look upon as susceptible skin or predisposition of the patient plays a great part in these outbreaks. We see numerous patients who have harbored the infection for a number of years with no particular inconvenience, flare up for no reason that we can assign with an acute outbreak that disables them. A question of loss of resistance.

In demonstrating the causative organism microscopically I have found the following procedure the most uniformly successful: In obtaining material for examination, first scrape away the superficial scales and debris, then take the deeper scales or top of vesicles transfer the scales to a clean glass slide and place on it a couple of drops of 15% sodium hydroxide. Cover with a cover-glass and allow to stand for an hour or so. The specimen is then ready for examination. Heating the specimen to hurry the examination is unsatisfactory. In a large percentage of cases if one is patient and willing to try several preparations the organisms can be demonstrated. If the case has received previous treatment the chances of successful demonstration are lessened. If microscopical demonstration is impossible, then of course the only procedure is the culture media.

Treatment

Everyone who has had experience in treating cases of dermatophytosis realizes the difficulties confronting one when this subject is approached. From the many treatments proposed it is clear that uniform success cannot be expected to follow any one line of treatment. Some cases with marked involvement will respond readily and quickly to almost any line of treatment while others, mild in type, are very resistant to treatment. This, I think, is due not so much to the type of infection as to the individual resistance of the patient to infection. Some skins seemingly need very little help in overcoming the infection while others seem totally unable to cope with it. Constitutional treatment seems to have very little effect, although, in a case whose general condition is bad, appropriate measures should be taken to correct this.

The various drugs and agents that have been advocated in the treatment of this condition are very numerous. The following are some of the treatments proposed: salicylic acid, benzoic acid, mercury in some form, chrysarobin, sulphur, formalin, potassium permanganate, tar, iodine, silver nitrate, alcohol, X-ray, ultraviolet ray, carbon dioxid show, injections of foreign protein, etc. The most useful agents in my hands have been salicylic acid, benzoic acid, mercury, X-ray and ultraviolet ray. Chrysarobin, the favorite of numerous authors, in my hands stains very badly, irritates and gives very indifferent results. Salicylic acid owes its effectiveness to the peeling and removal of skin. If to this peeling is added mechanical removal with scissors, curette, etc., the process is hastened. After the removal of the superficial layers, mercury for destroying the parasites is very useful. If curative results are hoped for the salicylic acid must be used strong enough to thoroughly remove the horny layers. This can be accomplished without discomfort to the patient, if the percentages of salicylic acid used are carefully graduated. X-ray in my opinion has very little curative effect and is only palliative, however, it is a very useful agent to control the condition and allows us

time in which to use our antiparasitic applications. It will relieve the symptoms probably more quickly than any agent we have. Its action is hard to explain in that the amounts of ray used can certainly have no antiparasitic effect. In the acute outbreaks a very mild wash will be found useful, until the acute stage of irritation is safely over, then our stronger application can be started.

Water invariably irritates these conditions and should be interdicted until the process is under control. Socks should be boiled after wearing, (the laundry does not kill off the organisms). The shoes should be sterilized with powder. Bedroom shoes, infected bath mats, etc., should also receive attention. It is my belief that recurrences which are so common in dermatophytosis are due to stopping treatment too quickly. It is not sufficient to relieve symptoms but the parasites must be destroyed.

Conclusion

This very important subject has not received the study to which its importance entitles it. When we consider its frequency and the economic problem involved from disability it is very easy to see that this is a subject which demands attention. Our present methods of diagnosis are very imperfect to say the least. Our knowledge of its epidemiology and thorough classification of the offending organisms should receive thorough study. Better methods of treatment are urgently required. An attempt at ridding the floors, wearing apparel, etc., of these common organisms, particularly at the public baths, in clubs, Y. M. C. A.'s, etc., where most of these cases are contracted, should be made.

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Discussion on Paper of Dr. Jack W. Jones

DR. M. G. CAMPBELL, Atlanta, Ga.: I thank Dr. Jones for his paper. It is timely and important. Like the preceding speaker, I, too, have suffered from the trouble at times. The condition is very annoying and

painful. The pain is an intense itching with a burning sensation. I have always thought it must be a parasite. There is a feeling like a worm was wiggling in the tissues.

If the vesicles are punctured and the epidermis removed there is great relief. I have found that radiant light and heat relieves the symptoms and heals the skin quickly. There is, however, a recurrence which is again easily healed by light. Years ago I was called to see a prominent man with it. I called it Eczema at the time. I gave him the light and told him to use it when he had the attack. He used the light with a great deal of comfort.

I would like to know of Dr. Jones the reaction of the media in which the micro-organism lives. By changing the chemistry

of the tissue, perhaps, better results may be accomplished by the treatment.

Dr. Jones' paper was discussed by Drs. Wm. H. Hailey, Atlanta; W. P. Jordan, Columbus; Moses G. Campbell, Atlanta, and in closing by the essayist. As the reporter was busy with the meeting of the House of Delegates and was unable to take down these discussions, it was suggested that these doctors write out their discussions and send them in so they could be published in connection with the paper. Dr. Campbell's was the only one received.

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TREATMENT OF DIABETES MELLITUS*

A. FOOD—B. INSULIN

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Food: Any doctor in these days can learn enough to start treating intelligently the average diabetic, who in turn, may learn in ten days the fundamentals, namely: weighing foods, counting calories and using insulin.

So, upon first thought, it would seem unnecessary to bring to your attention this simple but very vital subject. However, Georgia still has good physicians who are feeding their diabetics, after a "starvation period" on milk and breads, some cautioning strongly against white bread but allowing rye or whole wheat breads. Still others are beginning insulin in one drop dosage and slowly increasing, all the while fearing a so-called reaction, which is promptly relieved by giving a little sugar or syrup.

The majority of diabetics can be successfully treated at the physician's office and at home, although it is more satisfactory to have them in an institution for a short time. It is imperative to admit for hospital training and treatment the severe cases. The vast majority of diabetics are able to go about their affairs and are not suffering from

severe acidosis, infections, gangrene or other serious complications, but it should be remembered that minor injuries are prone to lead to gangrene, particularly in the aged. These patients may be successfully treated provided their physicians will take the time to learn simple laboratory tests, how to prescribe the proper diet and how to give insulin. They should also learn to do a blood and urine sugar, and test for diacetic acid.

The day of qualitative restriction of diet has, for the most part, given away to quantitative. Possibly the very mild chronic cases may still be an exception. So the first thing for the physician to learn is the chemistry of foods. Fortunately that has been worked out and tabularized. Sugar is available from carbohydrates, fats or proteins. Therefore a restriction of albuminous foods and fats is important.

The food elements—C, F, P, S, W, V,—are all essential whether in health or disease. There is a wide range of food tolerance in health but in diseased conditions the reverse is often true. The diet should be adjusted so that there will not be an excretion of sugar. This is done by weighing foods and counting calories. There is no doubt in the writer's

*Read before Medical Association of Georgia, May 14, 1925.

mind but that diabetics should be taught to weigh their foods instead of measure them, for the former is about as easy and more accurate, and impresses the patient with the fact that there is reward for the effort. The patient should also be frequently reminded that treatment is a life-time job and not a question of cure, for there is a tendency in most diabetics to over-step dietetic bounds after they feel good.

The amount of food for any given individual is determined by the heat units expended. This, in turn, is influenced by age, sex, weight, occupation, etc. A heat unit, or calorie, is the amount of heat necessary to raise one liter of distilled water one degree Centigrade. Heat is produced from the internal combustion of the fuel constituents, carbohydrates, fats and proteins. In round numbers, each gram of carbohydrates and proteins is equal to 4 heat units, and fats to 9.

Insulin: Next in value to the proper food adjustment is insulin, a thing which is not very well understood by some intelligent laymen. This fact was impressed upon the writer only a few days ago, when a business man asked the question: "What has become of insulin?" Before a reply could be given, another layman answered: "Oh, it is all right, but you must have a complete laboratory before you can use it." On the contrary, the amount of equipment is so small and simple, and the knowledge so easily acquired that either layman, after a few days study, could carry out intelligent treatment in most cases.

The majority of patients get along quite satisfactorily on a properly adjusted diet, while others need the assistance of insulin from without for a short time, and still others for a greater time, even for life. Infections generally call for an increase of insulin. As to the dose, that is an individual matter, and the key is the amount of sugar in blood. If accompanied by nephritis, moderately high blood sugar may be of no great significance. Here is where co-operation comes from the patient who is taught the fundamentals of dietetics.

Let us suppose a case presenting for treatment is an adult belonging to the latter group. Weigh and measure the patient. If the patient is above normal weight for age and height, prescribe 1 gram carbohydrate, 2-3 gram protein and 2.5 grams fats for each kg. of body weight. If the patient is of normal weight or below, give 1 gram carbohydrate, 1 gram protein and 2.5 grams fats for each kg. of body weight. For example, a patient weighing 50 kg. (110 lbs.) may be given 50 carbohydrates, 50 proteins and 125 fats, furnishing 1525 calories, or 30.5 calories per kg.

Write the name and amount of each article of food, dividing into about equal portions for the three daily meals. Let the 5% and 10% vegetables be the source of most of the carbohydrates, mainly for bulk and carbohydrate intake. After three or four days on known diet, insulin should be begun if glycosuria does not disappear during this time, a so-called renal diabetic being an exception. Five or ten units may be administered once or twice a day, depending on the amount of sugar excreted, and increased or decreased for the same reason. This plan is safe, workable and brings the desired results. However, it is more exact and possibly brings quicker results to determine grams of sugar excreted in a 24 hour specimen, and begin one-half as many units of insulin as grams of sugar found, gradually increasing until there is no glycosuria and a normal blood sugar. Before a great while a gradual reduction in insulin may be begun and perhaps finally left off entirely in a majority of cases.

The writer wishes to advise against petting or coddling of the pancreas unduly, for, beyond a certain amount of rest, it is a law of nature to decrease the function of an organ so treated. Certainly the pancreas is no exception to this rule.

The following will act as a baseline meal which, with simple changes, may be adjusted to suit a patient of any age. It is a maintenance diet for an adult, of middle life, weighing 110 lbs. (50kg.) who is doing light work; or a basal diet for one weighing 132

lbs. Old age may require a reduction of 10% and youth an increase of 10% to 20% to take care of growth. Children require more protein than adults and do better on smaller amounts of fats, for they are more susceptible to acidosis on a diet rich in fats, and also a much larger per cent seem to require insulin, even in the mild cases. After learning the weight and age of the patient the diet may be found by simple arithmetic. Of course hard manual labor will call for more calories, but keep the same ratio, for it conforms to the formula laid down by Wood-yat, namely: $F=2C+P/2$.

BREAKFAST

Amt. Gms.	Food	Food Ch.	Prot.	Fats	Value Cals.
	Grape fruit, half.....	5	0	0	20
	Eggs, two	0	12	12	156
30	Bacon	0	5	15	155
15	Dry oatmeal	10	2	1	57
60	Cream, 20%	2	2	12	124
10	Butter	0	0	8	75
	Coffee	0	0	0	
	Total	17	21	48	587

DINNER

	Clear broth	0	0	0	
60	Meat (lean, cooked).....	0	16	10	154
300	Spinach	9	1	0	40
100	Lettuce and Tomato, (teaspoon mineral oil salad dressing)	3	0	0	12
30	Butter	0	0	25	225
	Orange, half	5	0	0	20
	Total	17	17	35	451

SUPPER

	Egg, one	0	6	6	78
30	Bacon	0	5	15	155
150	Asparagus	5	0	0	20
150	Celery	5	0	0	20
60	Cream, 20%	2	2	12	124
15	Butter	0	0	12	110
100	Strawberries or blackberries	5	0	0	20
	(in dish bran)				
	Total	12	13	45	527

Actual food intake

for 24 hours.....51 51 128 1565

REPORT OF CASES

CASE 1. History: A dairyman, W. T. C., age 58, white. Father died in 1908 of diabetes mellitus. Present history: Known diabetic 5 years. During this period he has taken 4 qts. of sweet milk a day part of the time at the suggestion of a doctor years ago. Voids 15 to 20 times each night, nervous, miserable and about ready to die. Urine 4 plus, blood sugar 260 at 5 P.M. When treatment was outlined he threw up his hands and remarked that he was too old to learn to weigh foods, examine urine and take insulin. After a little persuasion he tried and learned. Has gone his way rejoicing the past 16 months.

CASE 2. Mrs. M. H., a Hebrew, widow, age 59; referred by Dr. A. H. Hillsman, Albany, Ga. Diabetes dates from a severe illness 5 years ago when she was in coma two days. Regained fairly good health until March, 1924, when a small blister on a toe became gangrenous. When told of diet and insulin she agreed to follow suggestions. Examination showed urine 4 plus, blood sugar 305. Diet and insulin assisted in a recovery within a month. After this patient began walking and feeding herself. She grew tired of dieting and the hypodermics and very frankly stated that she was through following rules, a position she held after being told that she could not survive very long unless she adhered strictly to the rules.

She went her way for three months when a small boil developed on her back and became gangrenous. She again called for help but this time without avail. The sugar was reduced but an area 8x10 inches was gangrenous when she died a few days later.

Conclusions

Most diabetics can be successfully treated at home, provided their physicians learn the fundamentals of treatment and teach their patients the simple rules of diatetics, urine examination and administration of insulin.

Diabetics often need intelligent help and are unable to make frequent trips to large medical centers, thus placing the burden of their care on their family physicians. These sufferers should frequently have their attention called to the fact that treatment does not cure, but it prolongs life and allows them to live as normal individuals as long as they follow the rules. They should also be impressed with the fact that violations of the principles will bring suffering and possibly an early termination in death.

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Discussion on Paper of Dr. J. A. Redfearn

DR. JAMES E. PAULLIN, Jr., Atlanta, Ga.: Dr. Redfearn has given us a good resume of the present methods employed in handling diabetic patients. There are a good many points that might be discussed but there is only one at this time to which I wish to direct particular attention, namely, the absolute and fundamental importance of educating the diabetic patient as regards foods and food values, simple methods in testing the urine, evidence of toxemia, such as the early detection of acidosis and what to do in the event of an acute infection.

The first thing which we attempt to do for the diabetic is to send him to school. This school is maintained at the Piedmont Hospital in our diabetic kitchen. The diabetic is sent to the kitchen every day for at least one or two hours. He is taught the carbohydrate, protein and fat content of the majority of the common foods. Demonstrations are given of the foods that contain a little carbohydrate and those that contain large amounts of carbohydrate. He learns the foods belonging to the various classes of five, ten and twenty percent carbohydrate containing vegetables. He is then taught the contents of thirty grams of various vegetables of these groups, as well as the content of thirty grams of various other foods. As soon as this is mastered he then begins to weigh out the formula which has been previously prepared for him. The next step is teaching the patient to work various formulae for himself.

After this kind of instruction he is sent to the laboratory where he is taught to test his urine for diacetic acid and sugar. In the meantime he has received instructions and actual practice in the collecting of a twenty-four hour specimen.

With this knowledge the diabetic is fortified against imprudence in diet. He is taught the necessity of abiding strictly by his formula and he is taught what to do in the event he shows sugar on a given diet.

It is not difficult to teach these individuals any of the above mentioned things. It requires a little study and a little simple arithmetic which the majority of the patients can master in three or four lessons. Unless the diabetic is fortified with this knowledge it matters not how good his physician he is liable sooner or later to get into trouble from which it may be difficult for him to escape.

The diabetic is next taught that in the presence of acute infection, such as an acute respiratory infection or gastro-intestinal upset, the first and most important thing to do is to go to bed, drink lots of water, keep warm and send for a doctor. Should

there be fever the content of fat in his diet is reduced by one-half and should the urine show sugar his carbohydrate is reduced until he can be seen by his physician.

The absolute importance of teaching these things to the diabetic is realized when one understands that it is practically impossible for the diabetic at all times to be under the supervision of his attending physician. Since the advent of insulin unfortunately the erroneous idea has gained ground that the diabetic patient may eat what he chooses provided he takes a sufficient amount of insulin. This is a very hazardous thing for the diabetic to do because of the fact that with careful dieting, even with large amounts of insulin, it is almost impossible to keep some of these patients sugar-free and the onset of coma may come very suddenly and unexpectedly to take the patient off before one realizes what has happened. Insulin has served to make it much more important to pay attention to diet and to watch patients with greater care than was necessary before.

A good many physicians have the idea that diabetic patients are depressed and have a tendency to break their diet. As a matter of fact they are about the happiest people with whom we come in contact. The reason for their happiness is that they are able to lead a fairly normal life, they are sugar-free and they are satisfied with the amount of food which they get and this keeps them in excellent physical condition.

DR. JOHN W. DANIEL, Savannah, Ga.: I have nothing to offer in addition to what Dr. Redfearn and Dr. Paullin have said, but I wish to cite a case which may be of great benefit to some of the physicians present.

I have treated quite a number of diabetics, placing them in hospitals and teaching them to take care of themselves. One patient, a man who was brought in from another city, was put in a hospital and taught how to run his diet and insulin. After clearing him up and reducing the blood sugar to a safe limit he returned home and followed his treatment for months. He then began drinking liquor and became careless with his treatment. Later on he was stricken with a pain in the abdomen in the region of the appendix, with a rise in temperature and a rapid pulse. After being treated at home for two or three days, with the administration of morphine to allay his agonizing pain, he was sent to the city. His temperature was 103° F., pulse 120, abdomen rigid and distended. He was suffering great pain, but had none of the mental symptoms of the acidotic.

We made a blood count, thinking of acute appendicitis, and found 20,000 leukocytes, which was a little high for appendicitis. We suspected pneumonia but could find nothing in the chest. A surgeon was called in and confirmed the diagnosis of an acute condition in abdomen. Before operating we made a blood chemistry which showed sugar 856mg., CO-2 39 vol. %. As the case was urgent, we decided to operate under local anesthesia. Upon opening the abdomen we found a perfectly normal appendix and a normal abdomen. The patient went into a state of coma in spite of intravenous injections of large doses of insulin and glucose and died twelve hours later. Before death we made another blood chemistry. The blood sugar was 1000mg., the CO-2 22 vol. %.

This case calls to our attention the fact that acidotic conditions often give symptoms which are deceiving in that they simulate an acute abdominal condition. We should not base our diagnosis upon the physical findings, temperatures, blood count, etc., but upon the blood chemistry. If there is an acidotic condition be very careful about going into the abdomen.

After this experience I found that Allen had reported a case of similar nature, and the following week Joslin came out with an article warning against operating on the borderline of an acute acidosis.

DR. HAL McC. DAVISON, Atlanta, Ga.: I wish to add another case that is similar to that of Dr. Daniel's. The patient is a young man whom I have been seeing in the last three days, who had been told that whisky was a good thing to take for diabetes. His doctor did not know any better and turned him loose and when he got on whisky he thought it was good for his diet. He is on the border of coma, with a temperature of 102° F. I think every diabetic patient should stay away from alcohol in every form, and these people should be so instructed.

Another thing the patients should be educated in, that happens in many instances, especially in women beyond a certain age, is the avoidance of obesity. They come in on what appears to be basic diet, they feel pretty good, do not show sugar, but begin to gain weight. I have had some patients who gained twenty pounds within a short period, and when they do this they are much worse off than at first. I think this point should be emphasized to a great extent in all diabetic patients, and especially in women past the age of forty.

Many patients will come in and after a comparatively short period of treatment will feel about normal and stay in good condi-

tion. One man not long ago had blood sugar of 500 mgs. and after thirteen days' treatment was sent home on 2000 calories. This man has shown sugar only twice in three months, and on cutting down his diet to 1500 calories he has been well.

Another class of patients is that which comes in asking for a tonic. Of course, the medical profession has got past the age of using tonics, but one set of symptoms to look for, whether there is any evidence of diabetes or not, is that of diabetes mellitus. I think we should take separate specimens of urine for twenty-four hours. It is at least reasonable to think that a man may show some sugar in his first urine in the morning but of such a small amount that it may not show in the twenty-four hour specimen. We may get urine sugar as high as 1 per cent in a small specimen. A patient may not have a large amount of urine and yet may show sugar. I have had three patients come in asking for a tonic who upon careful examination showed a mild form of diabetes.

DR. J. D. GRAY, Augusta, Ga.: Dr. Redfearn has stressed one important thing and that is to teach the average diabetic enough to take care of himself. I wish to recite a case that shows the necessity of this.

This patient came in with a history of eighteen carbuncles in the last few years. All had healed with the exception of two. We found she had no sugar in the urine but the blood sugar was around 250 mgs. After getting the blood sugar down, not to normal but a great deal lower, she went home and was told to report back every two or three weeks, which she did not do. She was getting along fine. She had a little abscess from the insulin puncture and called in her family doctor. That doctor immediately cut out the insulin and told her to eat anything she wished, even candy if she wished it. She did this without developing sugar in the urine, but about the time she was indulging in candy she was driving a nail in the wall and struck her finger, and immediately developed a carbuncle there. She then went back to her diet but not to the insulin, and when she returned her blood sugar was around 260 mgs., but still there was no sugar in the urine. This shows the importance of making blood sugar determinations as well as of telling the patients what to do and insisting on their doing it.

DR. THOMAS E. ROGERS, Macon, Ga.: There is so much to this subject that it is impossible for a man to touch on all phases of it. One phase that Dr. Redfearn barely touched on which, to my mind, is one of the most important things about diabetes and

insulin. Anybody, it matters not where he practices, is liable to run into trouble and is liable to need help. All doctors, practicing in all parts of the country, cannot treat their diabetic patients as Dr. Paullin treats them in the hospital and as others do who have access to a hospital, but we are all likely to run into diabetic coma at any time and we can save lives by certain methods. There is nothing that is more of an emergency than a diabetic coma. We must act quickly, and before the days of insulin most of these patients died. Since the advent of insulin Joslin claims he has been able to save two-thirds of them. This includes the patients who come in moribund. If he could see them earlier he could save a great many more than that.

My practice after making a diagnosis of diabetic coma is to give the patient forty to fifty units of insulin intravenously. In two hours I catheterize them or do a blood sugar determination. If a man practices medicine where he cannot make the blood sugar determination he can catheterize the patient and in this way he can see if they are still putting out sugar. If they are and are still in coma I give twenty-five or thirty more units of insulin intravenously. I keep this up, catheterizing them every two hours and giving more insulin if necessary. If they stop putting out the sugar then I give glucose and insulin, and keep this up until they come out of the coma. In this way we can save lives where heretofore the patients have died. To my mind this is, for the average practitioner, one of the most important phases of diabetes and insulin.

DR. J. A. REDFEARN, Albany, Ga.,

(closing): I wish to thank the gentlemen for their discussion.

I wish to call your attention to the fact that during the past seven years or so the question of diet has been completely revolutionized. I believe Allen is given more credit for this than anyone else, but it behooves all of us doctors to know what a calory is and how to use it, not only in diabetes but in various ways. How many overweight, intelligent individuals do you know who are reducing by mail? Many of them have books that they follow and many of them take as much as forty pounds off their weight without consulting a doctor at all. One man was advised by an insurance company to do this. If we do not learn something about calories and such patients come in and find that they know more about these matters than we do, it will not put us in a very favorable light with that patient's family and friends, to say nothing of the patient himself.

Another point I have been much interested in is diabetes in the Negro in the rural districts. In the question of race, the Negro is at the bottom and the Jew at the top of the list so far as diabetes is concerned. The one has the least to eat and the other the most. I have found only two full blooded Ethiopians so far with genuine diabetes. One of them was a pastry cook for fifteen years in a hotel known as the greatest eating place in South Georgia. The other was the wife of a Negro who had always lived on rich food. I have found diabetes in three or four mulattoes. This is an interesting point. The Negroes in the large cities I think show a considerably lower percentage of diabetes than the whites.

GENERAL ANAESTHESIA*

C. Amory Dexter, M.D.

Columbus, Georgia

Even ancient people had the benefit of various narcotic drugs, as Homer in the "Odyssey" says: "Helen dropped into the wine of which (the soldiers) drank a drug, an antidote for grief and pain inducing oblivion to all ills."

In 484 B. C., Herodotus refers to the inhalation of the vapors of hemp (*cannabis Indica*) to produce intoxication.

In 134 B. C., Galen tells of the power of mandragora (related to belladonna) to paralyze sensation and motion.

In 1250 Hugo de Luca, a physician, refers

to a certain oil with which he put patients to sleep before operations.

In 1544 Du Bartas writes:

"Even as a Surgeon, minding off to cut
Some cureless limb, before in use he put
His violent engines on the vicious member,
Bringeth his patient in a senseless slumber."

In 1772 Priestly discovers nitrous oxide but it was not used as a general anesthetic until 1844 when Horace Wells, a dentist of Hartford, Connecticut, made use of it for the extraction of teeth.

Nearly one hundred years ago ether frolics were very popular, young people in-

*Read before the June meeting of the Muscogee County Medical Society.

haling ether sufficiently to get some of its intoxicating effects, and during these frolics, because of the slight amount of pain felt from injuries which were received when somewhat under the influence of ether, it occurred to our own Dr. Crawford W. Long of Jefferson, Georgia, that surgical operations could be painlessly done if his patients could be given ether to inhale.

This idea occurred to him late in the year 1841 but it was not until the spring of 1842 that he found a patient who was willing to have the experiment tried, when he removed from James Venable two small tumors from this man's neck.

W. T. Morton, a student under Horace Wells, the dentist, in October, 1846, at the Massachusetts General Hospital gave a public demonstration of the use of ether as a general anesthetic, and being in a large medical center was given wide publicity, and because of this fact it has been a very difficult matter to get the credit for Dr. Long for having been the one first to perform a surgical operation under a general anesthetic.

In 1847 chloroform as a general anesthetic was introduced into Scotland by Sir James Y. Simpson and has always been more popular there than in the United States though up until about twenty-five years ago chloroform was more generally used in the Southern States than in the North.

Ethyl Chlorid although recognized as a general anesthetic in 1847 did not become widely used until about 1900.

About this time ethyl bromide had a limited use for minor operations and painful examinations. In 1902 in Jefferson Hospital we were using occasionally both ethyl bromide and chloride in such cases and did in a few instances use the latter for major operations, but found it both too expensive and relatively unsafe, though we had no casualties from its use.

Within the last few years Ethylene has come into use as a general anesthetic, the experimental work having been done in Chicago, and is beginning to be generally used, and is given by inhalation very much like nitrous oxide with oxygen, and occupies a place in anesthesia between ether and nitrous

oxide-ether, causing a little more relaxation than nitrous oxide does but not to the same extent as does ether.

Some authorities place ether at the head of the list as regards safety holding that ether statistics as to mortality include administration from all sources, while as a rule nitrous oxide is more often administered by those more expert in giving this anesthetic; though some do consider the latter the safest.

Ethylene administered with oxygen is thought to be safer than nitrous oxide but it has not been used in a sufficiently large number of cases to decide where its true place in anesthesia will be. Soon after the introduction of ethylene as a general anesthetic there were several unfortunate explosions, one or more being fatal for the patient, this gas forming with oxygen in certain proportions an explosive mixture; the cause of the accident being due to the generation of a static spark and in the more recent apparatus for its administration this danger, it is claimed, has been overcome.

To produce a general anesthesia it is necessary for the anesthetic agent to enter into the general circulation as only in this way can the higher nerve centers be reached.

General anesthesia may be divided into (a) complete and (b) incomplete. In complete anesthesia there are three stages, (1) induction, (2) maintenance, (3) recovery. The stage of induction may be further divided into three periods, (a) the period of excitement, cerebral and muscular, (b) the period of rigidity, (c) the period of relaxation. The stage of recovery into two periods, (a) the return of the reflexes, (b) the return of consciousness. Of course there is no well marked line of demarkation between these different stages and periods but a general transition of one into the other.

The term incomplete anesthesia usually refers to that anesthesia which isn't carried on to complete relaxation, this frequently being all that is required.

The foregoing classification while applying to all general anesthetics varies widely as to the anesthetic used and to the method used in the preparation of the patient, or in its administration.

I have thought that it would be more interesting and profitable not to go into the technical side of administering the various anesthetics but only to recall to your mind some of the little things that have been found helpful in carrying our patients through this usually dreaded ordeal more safely and with much more comfort.

First, I think that there ought to be close co-operation between surgeon and anesthetist both before, during and after the operation. Anesthetists believe that a visit to the patient a day or so before the operation is always most helpful, tending to a smoother and safer anesthesia by allaying the patient's fears, contradicting some of the absurd tales told the patient by so-called friends who exaggerate the dangers of a general anesthetic. This visit gives the anesthetist a chance to examine the heart and lungs of the patient and get a specimen of urine, if this has not already been attended to, and advise with the surgeon as to which would be the most suitable anesthetic.

It has been found that patients appreciate this preliminary visit and go to the operation with much less fear, and this undoubtedly a smaller amount of anesthetic given and a much smoother anesthesia.

In regard to the preliminary treatment and diet most surgeons and anesthetists now agree that immediate preliminary purging and starvation have the opposite effect from that at first thought to be true. Now, a purgative, when given is usually advised two nights before the operation with the usual diet the day before, with even the addition of a half pound of candy (which helps to neutralize the possible acidosis sometimes caused by the anesthetic).

Only this year Wohl and Harms, of Omaha, Nebraska, advise the giving of six ounces of orange juice to the patient both the night before and the morning of the operation, believing that this is the most pleasant way of getting glucose and alkali to the patient for the lessening of acidosis; and they have found a most remarkable improvement in the post-operative recovery of their patients with an almost entire disappearance of post-operative nausea and depression and patients who have been given orange juice they say

by this method take a smoother and quieter anesthetic.

Unless particularly contraindicated I think it helpful to let patients have all the water they wish up to within an hour or two of the operation. I think it is advisable to have the patient in the hospital for at least one night before the operation and to give a hypnotic, veronal or similar drug and bromide, for we all know how much better we feel after a good night's rest.

Whenever possible I think we ought to select an early hour in the morning so that the patient won't have to lie for a long time thinking it over, usually becoming more and more apprehensive.

If the patient is awake two hours before the time set for the operation I see no reason why they should not have a cup of light broth, tea or coffee, if in the habit of using these drinks for breakfast, unless the operation is to be on the intestinal tract.

Personally I think the preliminary hypodermic of morphine, gr. 1/6 atropine, gr. 1/150 or similar medication varied as to the weight of the patient about a half hour before hand has advantages which far outweigh its disadvantages, lessening the amount of mucus markedly in the respiratory tract, lessening the amount of anesthetic and rendering the anesthesia safer.

In very nervous or hysterical patients or in some children it is at times advisable to begin the anesthetic in the bed room, but preferably this should be done in the anesthetic room, and Flagg advises even on the operating table which has been previously moved into this room so that they do not have to be lifted until the operation is over as he believes that this makes for a smoother induction.

The anesthetic room should by all means be quiet and the anesthetist and the nurses should show no signs of haste and if the preliminary visit has not been made, he should take time to examine the chest and assure them that they can take the anesthetic with safety and allay any fears that they may have of its disagreeable effects.

An attendant, usually a nurse should always be present, and I think that the rule in most hospitals that members of the family

or visitors should not be present in the anesthetic room, a good one as in most cases the patient will take a better anesthetic when alone.

I always try to impress on the nurses not to suggest to the patient that the ether might burn the face or the eyes. I have frequently sprayed ether accidentally in my own eyes and the burning and irritation is only transient. Flagg even advises against the use of gauze across the eyes as he says in his opinion more damage is done when this rubs across the sensitive cornea in those cases where patients keep the lids open when asleep, than is done by the anesthetic vapors.

The chief complaint of most patients is the marked back-ache after lying for some time on the operating table and I think that this can be greatly alleviated or obviated through the use of the lift on the table to support the normal curve of the lumbar spine or if it has no such fixture the placing of a small pillow in this region.

It has always been my endeavor to keep the patient as lightly under the anesthetic as is compatible with the nature of the operation and the needs of the surgeon, some surgeons requiring a deeper anesthesia than others, but all able to permit of a lighter anesthesia if they are very gentle in their manipulations especially pulling as little as possible on the mesentery and organs.

Surgeons who operate under local anesthesia have to bear this in mind to lessen the amount of pain given their patients and should use the same gentleness when the patient is under a general anesthetic, for even though the patient is not then conscious of pain there is considerably increased shock from rough and prolonged handling of these organs and the anesthetist will have to deepen the anesthetic frequently when he would much prefer not to do so.

If surgeons will keep the anesthetist posted about the stage of the operation, (for the anesthetist can't always see what is going on and shouldn't watch the operation too closely, directing his whole attention to the patient) he is enabled to gauge the depth of anesthesia, as some viscera and tissues are not nearly as sensitive as others, and a

lighter anesthesia may be used, thus cutting down on the total amount used which is in the patient's interest.

For the average operation the best position for the arm is at the patient's side, the hands resting under the buttocks, as in this position there is less likelihood of causing a musculo-spiral paralysis. Always remember though to see that the fingers are opened out. In operations in which the arm is extended the operator should be careful not to pull too forcibly on it because of the possibility of developing a brachial paralysis, for no matter how successful the operation may have been the patient is slow to forget such an accident, often being forcibly reminded of it for days afterwards.

Anything that surgeon and anesthetist can do to make the patient more comfortable, carry them through more safely, lessen their dread and anxiety, lessen the after-discomforts, will make it easier to persuade other patients to have necessary operations done.

Just one little point in closing: I always begin the anesthetic as the surgeon starts his preparation, this allowing me time for a slow induction, and it is the exception to find a patient who says that the anesthetic was at all unpleasant. The taking a little extra time and patience is more than paid for in the grateful appreciation of patients particularly noticeable in those patients who have had previous anesthetics under the rapid induction methods of some of the larger clinics.

Give your business to the firms that advertise in your Journal. Make them glad that they favored the Journal of the Medical Association of Georgia with an ad.

CHARACTERISTIC CHANGES IN BLOOD CHEMISTRY IN WHOOPING COUGH

A total of 200 analyses of the blood in whooping cough have been made by Joseph C. Regan and Alexander V. Tolstouhiov, Brooklyn (Journal A. M. A., Jan. 16, 1926). Distinct and apparently significant changes have been encountered, the most characteristic of which were (1) a lowering of the hydrogen ion concentration of the blood and (2) a diminution of the inorganic phosphorus content.

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T. C. THOMPSON, M. D.

Articles are accepted for publication on condition that they are contributed solely to this Journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Reprints should be ordered within 30 days after the appearance of an article, since all type will be destroyed at the end of that time.

Editorial Department

CARDIAC INCOMPETENCY.

Death following clinical manifestations of cardiac incompetency commonly occurs without demonstrable morbid changes in the heart muscle at autopsy. This is especially true of the hypertrophied hearts of the cardio-vascular renal syndrome, the cause and nature of which have offered a widening field for investigation.

Korsner, Saphro, and Todd (1), in studying the question of hypertrophy on the basis of measurements of the transverse diameter of the fiber, and selecting their specimens so as to avoid confusion due to disease of the myocardium, have confirmed the previously generally accepted theory that "enlargement of the heart in hypertrophy is due principally to a hypertrophy of the muscle fibers without an increase in the number of fibers" and that "the change is accomplished by a distinct tendency toward uniformity in the breadth of the fibers."

There is no way of estimating vital capacity either by the size of the heart or its individual fibers and efforts to incriminate the latter by calling attention to a fading of the striae or nuclear changes give little promise of advancing our knowledge in this direction.

How, then, may we account for heart failure in these cases? Can it be explained on the anatomical basis of a limit of hypertrophy; or might we think that the condition causing hypertrophy persists to the point where proper nourishment of the tissues is impossible and death results from metabolic changes rather than because the limit of the heart's endurance has been reached?

Vaquez (2), in his text on "Diseases of the Heart," states, "We would say with Asehoff, Krehl, and Lissauer that, with our present knowledge and with the exception of the infectious or toxic myocarditides, it is not in pathological anatomy that we should seek the cause of heart failure."

R. S. LEADINGHAM.

REFERENCES

- (1) Korsner, Saphro and Todd, "State of the Cardiac Muscle in Hypertrophy and Atrophy", *Am. Jour. Path.*, Vol. I, No. 4, July, 1925, p. 351.
- (2) Vaquez-Laidlaw, "Diseases of the Heart", p. 596.

EMORY UNIVERSITY TO RAISE \$4,500,000 FOR MEDICAL EDUCATION

Medical education is to receive a total of \$4,500,000 from the \$10,000,000 Expansion Fund now being raised by Emory University, Atlanta. This money will be distributed as follows: Endowment for the School of Medicine, \$2,000,000; endowment for the Wesley Memorial Hospital, \$2,000,000; Pathology Laboratory and Hospital Administration Building, \$225,000; Nurses' Home, \$200,000; completion of Chemistry Building, \$75,000. The goal of the campaign as a whole is to provide \$6,500,000 in endowment and \$3,500,000 in new buildings to cover the estimated needs of all six schools of the University for the next ten years.

The Emory School of Medicine, formerly the Atlanta Medical College, has long been one of the three largest and strongest A-grade medical colleges in the South. It has a total of 3,400 alumni now practicing in all states of the union but two. Dr. Russell H. Oppenheimer is dean of the faculty of 130 men, among the part-time members of which are some of Atlanta's most eminent physicians and surgeons.

For many years the School has been handicapped both in research and teaching work because of inadequate endowment. The enrollment in each class has been limited to sixty men at a time when more physicians of Georgia alone are dying each year than the two medical colleges of the state are graduating. The School is looking to its alumni and to the other friends of medical education to give the funds so urgently needed for expansion.

REPORT OF COMMITTEE ON SCIENTIFIC WORK.

The Committee on Scientific Work, in arranging program for Albany meeting, May 12-13-14, 1926, will endeavor to present a practical, as well as scientific, program. Broad-gauged and timely papers will receive first consideration for a place on program. As one of the main objects of our yearly meeting is to elevate the practice of medicine throughout Georgia, and as general practitioners greatly outnumber the physicians who limit their practice, the program committee will favor general subjects that are timely and important.

Last year's scientific committee clearly demonstrated, to the satisfaction of members of the Association, at the Atlanta meeting, that it was wiser and more productive of general good to have fewer papers with generous and intelligent discussions, than to have a large number of papers with no discussions. In keeping with this conviction the program committee will limit the number of papers to 36—not including the President's address and the two addresses from our invited guests from out the State.

For your consideration and information, will call attention to the following rules that have governed, in the past, the scientific work of our association:

1. Any member of the Association in good standing may send in a title for the program.

2. All titles must be sent in, in writing, on or before March 15th. They may be sent to the secretary of the association, or to any member of the Scientific Committee (By-Laws Chapter 6, Section 2).

3. By-Laws, Chapter 8, Section 1: "No address or paper before the Association shall occupy more than 15 minutes in its delivery; and no member shall speak longer than five minutes, nor more than once on any subject, except by unanimous consent." Section 2. "All papers read before the Association, or any of the Sections, shall become its property. Each paper shall be deposited with the secretary when read."

4. Resolutions adopted 1921: "Resolved: That a member who sends in a title of a paper to be placed on the program, and is not present to read the paper shall pay the penalty of not having the opportunity to appear on the program for two years, unless he presents an excuse acceptable to the Committee on Scientific Work."

5. All papers must be typewritten, double spaced, and on one side of the paper. Each paper should bear name and address of the author, and should be correct from the standpoint of spelling, grammar, rhetoric, etc.

6. No member will be placed on the program whose dues for the current year have not been paid.

7. Other things being equal, preference will be given to those who were not on last year's program.

The Committee will thank the members of the Association for their co-operation and help, to the end that this year's program will be educational and profitable, and will meet with the approval of all members of our Association.

W. A. Mulherin, Chairman,
Frank Bird,
Allen H. Bunce, Secretary,
Committee on Scientific Work.

AMPLE HOTEL ACCOMMODATIONS IN ALBANY

To the Editor:

I received a letter of inquiry from a lady in Chicago who will be here to take notes in May, stating that you had requested her to write me for information as to which hotel would be used for headquarters. Both the Gordon and New Albany are first class, absolutely fireproof, new hotels. I am writing her that the Gordon will be considered headquarters, but that equal accommodations can be had at the New Albany.

There has been some doubt all along in the minds of some doctors throughout the state whether Albany would have sufficient hotel accommodations. For this reason, I have been particularly anxious that you come down for a day or two and look the situation over and give assurance through the Journal that ample accommodations could be had to all doctors who should attend the Convention in May.

Dr. Minchew and I are planning to leave for New Orleans on January 24th, for a few weeks Post Graduate course. We both would be very much pleased to have you run down and spend a few days with us if you could make arrangements to do so. I think that I shall be back, not later than February the fifteenth, and possibly by February the tenth; so any time after that date I shall be glad to have you spend a day or two with me in Albany.

Faternally yours,

J. A. REDFEARN,

Albany, Georgia,
January 16, 1926.

**The advertisers patronize your Journal.
Do you patronize them?**

A negative Wassermann blood test is one of the requirements for membership in the college fraternities at Albion College, Albion, Mich.

SYPHILIS AND HEART DISEASE (U. S. Public Health Service)

The relation between syphilis and cardiac disease was discussed at the recent sessions of the Imperial Social Hygiene Congress (British) by Colonel Sir Leonard Rogers, representing the Government of India. He said that practically the whole of heart disease in India was due to syphilis and concluded that the eradication of it would reduce heart trouble there to negligible proportions.

In this connection it might be observed that India is not alone in recognizing the great socio-economic problem of controlling syphilis. The United States Public Health Service has recently issued a compilation of abstracts relating to visceral syphilis for use in its cooperative work with the State departments of health in the control of venereal diseases. These abstracts reflect the causative influence of syphilis in diseases of the heart, aorta and peripheral blood vessels. Special attention is being given in all countries to the prevention of these diseases by prompt adequate treatment in the early stages of syphilis before the heart and blood vessels become involved.

GETTING OUT THIS MAGAZINE

Getting out this magazine is no picnic.

If we print jokes, folks say we are silly.

If we don't, they say we are too serious.

If we publish original matter, they say we lack of variety.

If we publish things from other papers, we are too lazy to write.

If we stay on the job, we ought to be out rustling news.

If we are rustling news, we are not attending to business.

If we don't print contributions, we don't show proper appreciation.

If we do print them, the paper is filled with junk.

Like as not some fellow will say we swiped this from another magazine.

And we did.

District and County Societies

District Editors

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. McGee, H. H., Savannah. 2. Watt, C. H., Thomasville. 3. Greer, Chas. A., Oglethorpe. 4. Williams, O. O., West Point. 5. Fitts, Jno. B., Atlanta. 6. Thompson, O. R., Macon. | <ol style="list-style-type: none"> 7. McCord, M. M., Rome. 8. Carter, D. M., Madison. 9. Bennett, J. C., Jefferson. 10. Lee, F., Lansing, Augusta. 11. Mixson, W. D., Waycross. 12. Cheek, O. H., Dublin. |
|---|---|

1926 HONOR ROLL

The following is a list of counties 100 per cent in membership for 1926. The date on which each became a 100 per cent society appears after the name of the society, together with the name of the secretary:

1. Randolph County, Dr. G. Y. Moore, Cuthbert, November 5, 1925.
2. Warren County, Dr. Robert C. McGahee, Warrenton, December 22, 1925.
3. Dougherty County, Dr. Albert S. Bacon, Albany, January 4, 1926.
4. Upson County, Dr. H. A. Barron, Thomaston, January 7, 1926.
5. Lamar County, Dr. John M. Anderson, Barnesville, January 21, 1926.
6. Crisp County, Dr. J. N. Dorminy, Cordele, February 4, 1926.
7. Evans County, Dr. D. S. Clanton, Hagan, February 13, 1926.

THE ELEVENTH DISTRICT MEDICAL SOCIETY

The Eleventh District Medical Society held its thirtieth semi-annual meeting, January 12, 1926, at Douglas. Dr. P. C. Quarterman, Valdosta, was elected President to succeed Dr. W. C. Hafford, Waycross; Dr. T. H. Clark, Douglas, Vice President, to succeed Dr. P. C. Quarterman, Valdosta, and Dr. W. D. Mixson, Waycross, Secretary-Treasurer, to succeed Dr. J. E. Penland, Waycross. A complete report of the minutes will appear in the March issue of the Journal.

FULTON COUNTY MEDICAL SOCIETY

A very interesting meeting of the Fulton County Medical Society was held December 3rd, 1925, at the Academy of Medicine, 32 Howard St., Atlanta.

Dr. F. P. Calhoun read a paper "Concerning the Diagnosis of Subarachnoid Hemorrhage in Reference to Ocular Symptoms,"

which was discussed by Drs. C. E. Dowman, C. W. Strickler and Grady E. Clay.

"The Size of the Heart" was the title of the paper presented by Dr. Stewart R. Roberts, and discussed by Drs. Glenville Giddings, A. H. Bunce, and E. D. Shanks.

The annual meeting for the election of officers was held at the Academy of Medicine Thursday evening, December 17, 1925.

The reports from all officers and committees were given the closest attention as the year's work showed, cooperation, work and progress in all departments of this Society.

Great interest and enthusiasm was felt by all present in the election of officers for the year 1926. Dr. J. L. Campbell was elected President, Dr. Marion T. Benson was elected Vice President and Dr. W. E. Barber and Dr. C. W. Roberts were elected to serve three and two year terms, respectively, on the board of Censors.

The standing committees are to be announced at the next regular meeting.

Respectfully submitted,

GRADY E. CLAY,

Secretary-Treasurer.

COUNTY SOCIETIES REPORTING FOR 1926

Dougherty County Medical Society—100%

On January 4th, we received a check from Dr. Albert S. Bacon, Dougherty's new Secretary-Treasurer, for \$75.00 covering State dues for the fifteen doctors in his County. This is the third Society to report 100 per cent in membership for 1926. The following are the new officers for this year:

President—J. C. Keaton, Albany.

Vice President—J. M. Barnett, Albany.

Secretary-Treasurer—Albert S. Bacon, Albany.

Delegate—W. L. Davis, Albany.

Upson County Medical Society—100%

Upson County is again 100 per cent in membership. Dr. Barron sent us his check for dues of the ten eligible members in his Society on January 7th, with the following list of new officers for 1926:

President—K. S. Williams, Thomaston.
 Vice President—A. H. Black, Thomaston.
 Secretary-Treasurer—H. A. Barron, Thomaston.
 Delegate—R. L. Carter, Thomaston.
 Alternate—B. C. Adams, Thomaston.
 Board of Censors—A. H. Black, J. M. McKenzie
 and C. A. Harris.

Lamar County Medical Society—100%

Dr. John M. Anderson, of Barnesville, is the fifth County Secretary to send in a 100 per cent report. The Sumter County Medical Society has been added on the "1926 Honor Roll" and a list of its new officers will be published later.

Whitfield County Medical Society

The Whitfield County Medical Society announces the following officers for 1926:

President—H. J. Ault, Dalton.
 Vice President—E. O. Shellhorse, Dalton.
 Secretary-Treasurer—B. L. Kennedy, Dalton.
 Delegate—H. L. Erwin, Dalton.
 Alternate—Trammell Starr, Dalton.
 Board of Censors—J. H. Steed, Dalton.

Terrell County Medical Society

The Terrell County Medical Society announces the following officers for 1926:

President—J. T. Arnold, Parrot.
 Vice-President—R. R. Holt, Parrot.
 Secretary-Treasurer—Logan Thomas, Dawson.

Butts County Medical Society

The Butts County Medical Society announces the following officers for 1926:

President—O. B. Howell, Jackson.
 Vice President—H. W. Copeland, Jackson.
 Secretary-Treasurer—J. Lee Byron, Jackson.
 Delegate—A. F. White, Flovilla.
 Alternate—O. B. Howell, Jackson.
 Board of Censors—J. Lee Byron, H. W. Copeland, A. F. White.

Emanuel County Medical Society

The Emanuel County Medical Society announces the following officers for 1926:

President—A. C. Johnson, Garfield.
 Vice President—J. H. Chandler, Swainsboro.
 Secretary-Treasurer—R. C. Franklin, Swainsboro.
 Delegate—E. T. Coleman, Graymont.
 Alternate—R. C. Franklin, Swainsboro.

Henry County Medical Society

The Henry County Medical Society announces the following officers for 1926:

President—R. L. Crawford, Locust Grove.
 Vice President—J. B. Weldon, Hampton.
 Secretary-Treasurer—W. P. Sloan, McDonough.
 Delegate—R. L. Tye, McDonough.

Telfair County Medical Society

President—Frank Mann, McRae.
 Vice President—W. H. Powell, Lumber City.
 Secretary-Treasurer—C. J. Maloy, Helena.

Delegates—J. K. Maloy, Milan, and W. H. Powell, Lumber City.

Board of Censors—W. H. Born, H. S. Maloy, J. W. Neal.

Washington County Medical Society

President—B. O. Joiner, Tennille.
 Vice President—R. L. Taylor, Davisboro.
 Secretary-Treasurer—N. Overby, Sandersville.
 Delegate—E. S. Peacock, Harrison.
 Alternate—J. R. Burdette, Tennille.
 Board of Censors—D. E. McMaster, G. W. Malone, E. S. Peacock.

Worth County Medical Society

The Worth County Medical Society announces the following officers for 1926:

President—J. L. Tracy, Sylvester.
 Vice President—H. S. McCoy, Doerun.
 Secretary-Treasurer—W. C. Tipton, Sylvester.
 Delegate—W. C. Tipton, Sylvester.
 Alternate—H. S. McCoy, Doerun.
 Board of Censors—G. S. Sumner, J. J. Crumbly and E. D. Ford.

Morgan County Medical Society

The Morgan County Medical Society announces the following officers for 1926:

President—W. M. Fambrough, Bostwick.
 Vice President—W. C. McGeary, Madison.
 Secretary-Treasurer—D. M. Carter, Madison.

Troup County Medical Society.

The Troup County Medical Society announces the following officers for 1926:

President—Emory Parks, LaGrange.
 Vice President—F. J. Amos, Hogansville.
 Secretary-Treasurer—R. S. O'Neal, LaGrange.
 Delegate—W. H. Clark, LaGrange.
 Board of Censors—W. P. Phillips, LaGrange.

Crisp County Medical Society.

The Crisp County Medical Society announces the following officers for 1926:

President—W. A. Miller, Arabi.
 Secretary-Treasurer—J. N. Dorminy, Cordele.
 Delegate—J. N. Dorminy, Cordele.
 Alternate—M. R. Smith, Cordele.

Fulton County Medical Society

The Fulton County Medical Society announces the following officers for 1926:

President—J. L. Campbell, Atlanta.
 Vice President—M. T. Benson, Atlanta.
 Secretary-Treasurer—Grady E. Clay, Atlanta.
 Board of Censors—J. N. Brawner, W. E. Barber and C. W. Roberts.

Grady County Medical Society

The Grady County Medical Society announces the following officers for 1926:

President—J. B. Warnell, Cairo.
 Secretary-Treasurer—J. V. Rogers, Cairo.

Clayton-Fayette Counties Medical Society

The Clayton-Fayette Counties Medical Society announces the following officers for 1926:

President—G. W. Wallis, Fayetteville.

Vice President—T. C. Cannon, Jonesboro.

Secretary-Treasurer—H. D. Kemper, Jonesboro.

Baldwin County Medical Society

The Baldwin County Medical Society announces the following officers for 1926:

President—W. M. Scott, Milledgeville.

Vice President—E. B. Saye, Milledgeville.

Secretary-Treasurer—H. D. Allen, Jr., Milledgeville.

Delegate—Geo. L. Echols, Milledgeville.

Alternate—E. W. Allen, Milledgeville.

Board of Censors—J. I. Garrard, E. W. Allen and John W. Oden.

Cook County Medical Society

Dr. H. W. Clements, Adel, has been elected Delegate and Dr. H. P. Askew, Nashville, Alternate, of the Cook County Medical Society. Dr. W. M. Shepard, Adel, who is Secretary-Treasurer of this Society, sent in the list of other officers some time ago and they were published in the January issue of the Journal.

Chattooga County Medical Society

Dr. H. D. Brown, of Summerville, Secretary-Treasurer of the Chattooga County Medical Society, has notified us that Dr. B. F. Shamblin, of Lyerly, has been elected Delegate and Dr. L. A. Mallicoat, of Trion, as Alternate. The names of the other officers were published in the January issue.

Woman's Auxiliary of the Medical Association of Georgia

OFFICERS

President.....Mrs. William H. Myers, Savannah	Secretary-Treasurer.....Mrs. A. J. Mooney, Statesboro
Vice-President-at-large.....Mrs. C. W. Roberts, Atlanta	Parliamentarian.....Mrs. Allen H. Bunce, Atlanta

District Managers

1st District.....Mrs. A. J. Waring, Savannah	7th District.....Mrs. W. H. Perkinson, Marietta
2nd District.....Mrs. Gordon Chason, Bainbridge	8th District.....Mrs. Paul Holliday, Athens
3rd District.....Mrs. R. H. Pate, Unadilla	9th District.....Mrs. J. H. Downey, Gainesville
4th District.....Mrs. R. S. O'Neal, LaGrange	10th District.....Mrs. T. E. Oertel, Augusta
5th District.....Mrs. James N. Brawner, Atlanta	11th District.....Mrs. B. H. Minchew, Waycross
6th District.....Mrs. C. H. Richardson, Jr., Macon	12th District.....Mrs. T. C. Thompson, Vidalia

THIRD DISTRICT MEDICAL AUXILIARY

On the afternoon of November 17, 1925, the women's organizations of Cordele—the D. A. R., the U. D. C., the Music and Dramatic Clubs entertained the members of the Auxiliary to the Third District Medical Association with a brilliant reception.

This reception was held in the parlors of the Suwanee Hotel, which were artistically decorated with ferns, palms, and beautiful chrysanthemums.

In the receiving line were the presidents of the hostess' clubs, and Mrs. M. R. Smith, President of Crisp County Auxiliary, Mrs. R. H. Pate, Unadilla District Manager, Mrs. E. B. Davis, District Secretary, Byromville, Mrs. V. O. Harvard, Arabi, Mrs. R. C. Primrose, Americus; Mrs. J. T. Arnold, Parrot; Mrs. J. H. Baxter, Mrs. W. L. Story, Ashburn; Mrs. E. B. Anderson, Americus.

Mrs. J. A. Ward, Mrs. T. E. Bradley, Mrs. A. J. Welchel, Mrs. Ford Ware assisted Mrs. U. V. Whipple, Mrs. W. L. Roebuck and others belonging to the hostess' clubs in entertaining.

A delightful musical program was rendered by Cordele talent, consisting of piano, violin, and vocal numbers.

The Third District Medical Association held its meeting at the same time, and at five o'clock the members were invited into the parlors to meet the ladies and be served.

After the reception the Auxiliary held its business meeting, with Mrs. Pate presiding.

The Lord's Prayer was repeated in unison.

After the reading and adoption of the minutes, a roll call of the counties was responded to, with interesting reports from Mrs. M. R. Smith, President of Crisp County Auxiliary, Mrs. W. L. Story of Turner County Auxiliary, and Mrs. E. B. Davis of Dooly County Auxiliary.

An open discussion was held, and plans for meetings and programs for county auxiliaries were exchanged.

The presiding officer urged each one present from the counties in the district where there was no auxiliary, to assist in organizing one.

Copies of the State Constitution and By-Laws were given to one in each county represented.

In the evening the ladies enjoyed a banquet given by the Crisp County Medical Society. Mrs. E. B. Davis responded to the addresses of welcome in behalf of the Auxiliary.

Mrs. R. H. Pate, as District Manager, was called on and gave an informal talk on the aim and purpose of the Woman's Auxiliary. Mrs. M. R. Smith, of Cordele, was called on and responded in a graceful manner with an interesting talk.

The next meeting of the Auxiliary will be held in Americus at the same time of the Third District Medical Association.

MRS. R. H. PATE,
District Manager.

FINE WORK OF CHATHAM COUNTY AUXILIARY

A most helpful plan of work has been started by the Chatham County Auxiliary. Mrs. A. J. Waring, of Savannah, is District manager. The auxiliary has undertaken to immunize five thousand school children with toxin antitoxin. The health officer, Dr. V. H. Bassett, is assisting in the work and the parents are reached through Parent-Teachers' Organizations. Cards are issued for the parents to sign stating if it has been done or if they prefer their physician, or agree to let the city give it. When this information is complete clinics will be held at the different schools and in the proper time finish the three injections. Inducements are offered to the children and with the last injection, each child will draw for a prize.

With this wonderful plan they hope to wipe out diphtheria in that district.

MRS. C. W. ROBERTS,
Vice-President at Large.

NINTH DISTRICT ORGANIZATION

Mrs. J. H. Downey, District Manager,
Gainesville, Georgia

Jackson County—

President, Mrs. J. C. Bennett, Jefferson, Ga.

Vice President, Mrs. Allen, Hoschton, Ga.

Secretary-Treasurer, Mrs. S. J. Smith, Jefferson, Ga.

Habersham County—

President, Mrs. O. W. Hardin, Cornelia, Ga.

Vice President, Mrs. P. Y. Duckett, Cornelia, Ga.

Secretary-Treasurer, Mrs. R. B. Lamb, Demorest, Ga.

Barrow County—

President, Mrs. E. R. Harris, Winder, Ga.

First Vice President, Mrs. L. W. Hodges, Winder, Ga.

Second Vice President, Mrs. C. B. Almond, Winder, Ga.

Third Vice President, Mrs. R. P. Adams, Winder, Ga.

Recording Secretary, Mrs. W. L. Mathews, Winder, Ga.

Corresponding Secretary, Mrs. S. T. Ross, Winder, Ga.

Hall County—

President, Mrs. J. H. Downey, Gainesville, Ga.

First Vice President, Mrs. J. B. Rudolph, Gainesville, Ga.

Second Vice President, Mrs. W. T. Meeks, New Holland, Ga.

Secretary-Treasurer, Mrs. H. L. Rudolph, Gainesville, Ga.

NEWS ITEMS

At the time we go to press, our own Dr. William Rawlings continues to be critically ill at his Sanitarium in Sandersville. The Association has not a man of whom it is more proud than Dr. Rawlings and its members are wishing and waiting with interest to learn of his recovery.

At a recent meeting of the Colquitt County Medical Society a resolution was passed that the entire Society attend the annual State meeting, which is to be held in Albany, May 12, 13 and 14, 1926, in a body. Why not have this excellent resolution passed in your own society?

Dr. C. L. Ayers, of Toccoa, has just returned from a visit to the Mayo Clinic at Rochester, Minn., and Battle Creek, Michigan. Dr. Ayers has been the efficient Secretary-Treasurer of the Stephens County Medical Society for twenty consecutive years.

Dr. and Mrs. T. C. Davison entertained the members of the Fulton County Medical Society and

their wives at a dance at their home, 144 Lanier Place, Atlanta, on the evening of December 23, 1925. The newly elected officers, Drs. W. P. Nicolson, Sr., and Arch Avery were the honor guests.

Dr. L. A. Baker is now practicing in Miami, Florida, having offices at 548 West Flagler Street. He was formerly of Tifton and a member of the Georgia State Board of Medical Examiners.

Dr. W. A. Walker announces that Dr. A. W. Rehberg, who has just completed a three year internship at Grady Hospital, Atlanta, is now associated with him at his Hospital in Cairo. A half-page ad of Dr. Walker's Hospital appears in this Journal.

Dr. J. R. Graves has changed his address from Zebulon to Chipley, R. F. D., No. 2. He has the best wishes of the Association for continued success in his new location.

Dr. Frank Boland, of Atlanta, and our President, was elected Vice President of the Southern Surgical Association at its recent meeting held in Louisville, Ky.

Mrs. Henry S. Wright, Atlanta, received a cablegram from her son, Capt. Lucius F. Wright, that he had sailed from Manilla, December 21st, for the United States. January 13th she received a telegram saying he had reached San Francisco safely. He was transport surgeon coming over and brought forty patients from Manilla to the Letterman General Hospital, San Francisco.

The numerous friends of Dr. W. H. Bowdoin will be interested to learn of his removal from Satham to Montezuma. He is a new member of the Macon-Taylor Counties Medical Society.

Dr. H. D. Brown has removed from Lyerly to Summerville. We are glad that Dr. Brown remained in Chattooga County for it would seem impossible to give him up as Secretary-Treasurer of the Chattooga County Medical Society. He was among those sending in their 1926 reports during December.

In a recent letter received from Dr. Wm. T. Freeman, formerly of Atlanta but now of Asheville, North Carolina, he stated that he was enjoying the Journal very much. We are glad to learn this but more especially glad to hear from him again.

Dr. E. Bates Block, a member of the Fulton County Medical Society, Atlanta, was named Honorary Grand Vice President of the Alpha Kappa Kappa Medical Fraternity at its bi-ennial convention at the Biltmore Hotel, Atlanta, during December.

We learned with regret of the serious illness of Dr. J. D. Zachary, of Gray, and sincerely hope that by the time the Journal comes off the press he will be up and feeling fine again. Dr. Zachary is Secretary-Treasurer of the Jones County Medical Society.

Dr. W. E. McCurry is the newly elected President of the Hartwell Kiwanis Club. He is Secretary-Treasurer of the Hart County Medical Society, which was on the 1925 "Honor Roll" as being one-hundred per cent in membership.

Dr. Charles H. Watt, of Thomasville, has been made a member of the Southern Surgical Association. As the membership is limited to two hundred and vacancies are caused only by death or removal Dr. Watt has been highly honored.

Dr. H. Walter Copeland is being welcomed as a new member of the medical fraternity in Griffin. He was formerly practicing in Jackson and was elected 1926 Vice President of the Butts County Medical Society.

Dr. W. H. Hendricks, of Tifton, has been elected Physician to Tift County. He was 1925 Delegate from his Society at the State meeting in Atlanta.

Dr. W. F. Reavis, of Waycross, was named Physician for Post G., Travelers Protective Association of America. He represented Ware County as Delegate at the last annual meeting of the State Association.

Dr. R. L. Carter was elected Physician of Thomaston for 1926. Dr. Carter was President of Upson County Society during 1925 and is serving his Society as Delegate this year.

Dr. W. J. Cranston, of Augusta, was unanimously re-elected President of the Richmond County Medical Society for 1926. Dr. W. A. Mulherin was elected Secretary-Treasurer to succeed Dr. M. P. Agee. This Society acquired 32 new members during the past year.

Mr. Alfred Bourne, of Augusta, gave \$5,000 as a Christmas gift to the Department of Internal Medicine of the University of Georgia Medical College, Augusta.

Drs. Robert C. Maddox and E. J. Radcliffe have been added to the Staff of the Harbin Hospital, Rome. Dr. Maddox, who is one of Rome's most prominent physicians, has charge of the Pediatric Department and Dr. Radcliffe, formerly of Toronto, has charge of the Orthopedic Department.

Dr. D. H. Monroe, of Emerson, Bartow County, was chosen District Health Commissioner to succeed the late Dr. Howard E. Felton.

Dr. W. J. Dickson has removed from Rebecca to Nashville. Dr. Dickson will be missed in Turner County as he was one of its outstanding doctors.

Dr. Milton Wyatt Williamson announces the opening of offices at 512 Hurt Building, Atlanta. He is limiting his practice to Diseases of Infants and Children and is one of the new 1926 members of the Fulton County Medical Society.

The Sectional meeting of the American College of Surgeons for the States of Louisiana, Mississippi, Florida, Georgia and Alabama was held in New Orleans on January 25th and 26th, with headquarters at the Roosevelt.

The Georgia State Forestry Department has sent out large, brilliant red posters with the wording, "FIRE THE OUTLAW, DON'T TURN HIM LOOSE IN THE WOODS," to aid in the prevention of forest fires.

The Inter-State Post Graduate Assembly of North America will hold clinics in Europe, sailing from New York April 28th. For further information write Dr. W. B. Peck, Managing-Director, Freeport, Illinois.

AMERICAN BOARD OF OTOLARYNGOLOGY

An examination will be held by the American Board of Otolaryngology in Dallas, Texas, on Monday, April 19, 1926, and in San Francisco, California, on Tuesday, April 27, 1926.

Application should be made to the Secretary, Dr. H. W. Loeb, 1402 South Grand Boulevard, St. Louis, Missouri.

MERCURY AS A SPIROCHETICIDE

It has long been the unique distinction of the arsphenamines (606 and its successors) that in non-toxic doses they were capable of acting as spirocheticides, whereas mercury has always been given in subcurative doses because of its comparative toxicity. Now the claim is made that the organic mercury compound, Mercurosal, is spirocheticidal in non-toxic doses.

Based on animal tests in cases of syphilis artificially induced, the spirocheticidal dose of Mercurosal for a luetic patient has been fixed at 3.5 milligrams per kilo of body-weight, the injections (intravenous) being repeated at intervals of three days until ten are given. A 70-kilo patient would therefore receive 245 milligrams (0.25 gram) at a dose; but it is advised that smaller doses be given at first to test the patient's sensitiveness toward mercury.

The manufacturers, Parke, Davis & Co., put out an intravenous dose of 0.1 gram, and in addition a 50-cc rubber-diaphragmed bottle containing in each cubic centimeter 0.025 gram of Mercurosal, or 0.25 gram in 10 cc. It is claimed that, with caution, the dose can be built up by degrees to this figure, or, if doses of 0.2 gram or less are preferred, the injections can be given at two-day intervals. Mercurosal is said to be harmless to the vein; and this being so, the intravenous method of administration is, of course, the ideal one. See Parke, Davis & Co.'s advertisement on Mercurosal in this issue.

AMERICAN CONGRESS ON INTERNAL MEDICINE.

The Tenth Annual Congress on Internal Medicine will be held at Detroit and Ann Arbor, week of February 22-27, 1926.

The Congress is devoted to amphitheatre, bedside and clinical laboratory demonstrations as well as to symposia dealing with modern phases of internal medicine. Distinguished guests from abroad, Canada and the leading clinics of the United States will occupy prominent places on the program. Four days will be devoted to the work at Detroit, and on one day the society will be the guest of the University of Michigan at the newly opened eleven hundred bed University hospital.

All physicians who are interested in internal medicine and who are members in good standing of their local and national societies, are cordially invited to attend the Congress.

Hotel headquarters will be at the Book-Cadillac in Detroit. Information regarding reduced railroad rates, program, hotel accommodations, etc., may be secured from the Secretary-General.

C. G. Jennings, M.D., President,
American Congress on Internal Medicine,
Detroit, Mich.
Frank Smithies, M.D., Sec'y. Gen'l.,
920 N. Michigan Avenue,
Chicago, Ill.

COMMUNICATIONS

To the Editor:

We are sending, for your attention, a copy of our new general catalog which, although it has only been recently issued, has been generously complimented by the doctors who have seen it. We should be glad to send a copy to any of your readers who are interested, and we hope that this one will find a very convenient place in your file for ready reference.

Yours very truly,

SWAN-MYERS COMPANY,
R. M. Cam, Pres. Gen. Mgr.

Indianapolis, Ind.,

January 18, 1926.

Editor's Note: The catalog mentioned is unusually well gotten up and should be in every doctor's office as it would prove invaluable. Send for your copy now!

To the Editor:

I am returning to you the contract signed for our page space in THE JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA.

Our past relations have been very pleasant and cordial, and we are glad to continue them in the future.

Thank you very much for the expression in the last paragraph. I assume that the "booperate" is meant to be "cooperate."

Very truly yours,

HENRY F. BRANSTATER,
For Hanovia Chemical & Mfg. Co.
Newark, N. J.
January 14, 1926.

To the Editor:

Please allow me to express to you the sincere thanks of the National officers of the American Red Cross and my own personal appreciation for the generous contribution which you made to our Ninth Annual Roll Call in the pages of the JOURNAL OF THE MEDICAL ASS'N OF GEORGIA. It is our aim to extend each year to every man and woman in the United States a direct invitation to enroll in the Red Cross ranks. In aiding us to extend this invitation to your readers you did much to contribute to the success of our campaign.

Cordially yours,

DOUGLAS GRIESEMER,
Director Public Information.

Washington, D. C.,
January 20, 1926.

Dr. Robert T. Morris, President,
National Endowment Fund, The Physicians' Home, Inc., Times Building,
42nd Street and Broadway,
New York City.

Dear Dr. Morris:

In view of my very close relationship with the medical profession of this State, both officially and unofficially, and my knowledge of the various problems which confront the profession, I am very glad indeed to give my hearty endorsement to the project of making provision for practicing physicians who, on account of advanced age, physical and mental disability or misfortune, are no longer able to provide for themselves and their families.

Please accept my best wishes for the success of this most worthy enterprise and believe me

Sincerely yours,

ALFRED S. SMITH, Governor,
State of New York.

Did you mention the Journal of the Medical Association of Georgia when writing to advertisers? Let them know that it pays to advertise in your Journal!

BOOKS RECEIVED

Abdominal Operations—New (4th) Edition, by Sir Berkeley Moynihan, K. C. M. G., C. B., Leeds, London, England. Entirely reset and enlarged. Two octavo volumes totaling 1217 pages, with 470 illustrations, 10 in colors. Philadelphia and London: W. B. Saunders Company. Price: Cloth \$20.00 net.

The Development of Our Knowledge of Tuberculosis, by Lawrence F. Flick, M.D., L.L.D.; profounder of the Rusk Hospital for Diseases of Chest; organizer of the Philadelphia Society for the Prevention of Tuberculosis; profounder of the Free Hospital for Poor Consumptives and White Haven Sanatorium Association; profounder of the Henry Thipps Institute; co-organizer of the National Association of the Study and Prevention of Tuberculosis; Chairman of the Tuberculosis of International Congress of Tuberculosis in Washington, 1908; ex-President of the International Anti-Tuberculosis Association; author of the "Crusade Against Tuberculosis—Consumption a Curable and Preventable Disease." Published by Dr. Flick at 738 Pine Street, Philadelphia.

Non-Surgical Treatment of Diseases of the Mouth, Throat, Nose, Ear and Eye, by Thos. H. Odeneal, M. D., Otolologist, Rhinologist, Laryngologist and Ophthalmologist to the Beverly Hospital Corp., Beverly, Mass.; Massachusetts State Infirmary; North Reading Tuberculosis Hospital; Associate Member, Staff of the Good Samaritan Hospital, West Palm Beach, Fla. Publishers; P. Blakiston's Son & Co., Philadelphia. Price: \$4.00 net.

Allergy-Asthma, Hay Fever, Urticaria and Allied Manifestations of Reaction, by William W. Duke, Ph.B., M.D., Kansas City, Mo. Seventy-five illustrations. Publishers: C. V. Mosby Co., St. Louis. Price: \$5.50.

Pygmalion, or The Doctor of the Future, by R. M. Wilson, M.B., Ch.B. Proceed-

ing from the point that "symptoms are not necessarily a sign of disease," Dr. Wilson visualizes the doctor of the future in simple, interesting, non-technical language. Publishers: E. P. Dutton & Co., 681 Fifth Ave., New York City. Price: \$1.00.

Surgical Clinics of North America, October, 1925. Issued every month. Volume V, Number V. St. Louis Number. Publishers: W. B. Saunders Company, Philadelphia and London.

BOOK REVIEWS

A Textbook of General Bacteriology. By Edwin O. Jordan, Ph.D., Professor of Bacteriology in the University of Chicago and in Rush Medical College. Eighth Edition, thoroughly revised. Octavo of 752 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1924. Cloth \$5.00 net.

This new (8th) edition is very complete and has been thoroughly revised by Dr. Jordan. A great deal of new material has been added on the bacteriophage phenomenon, tularemia, botulism, scarlet fever, and some other subjects.

Dr. Jordan's book has long been recognized as one of the best textbooks of elementary bacteriology, and is essentially a textbook for students of this subject. It is of interest in general scientific courses, in various industries and in agriculture.

Chapters on immunity and on the bacterial diseases of plants are included.

R. T. WARNOCK.

TRUTH ABOUT MEDICINES

The following articles have been accepted by the Council on Pharmacy and Chemistry of the A. M. A.:

Abbott Laboratories—

Arsphenamine-D. R. L., 0. 3 Gm. Ampules.

Arsphenamine-D. R. L., 0. 5 Gm. Ampules.

Neosarsphenamine-D. R. L., 0. 15 Gm. Ampules.

Neurtal Aeriflavine Jelly 1:1000-Abbott.

Eli Lilly & Company—

Para-Thor-Mone-Lilly.

Para-Thor-Mone-Lilly P-20, 5 Ce.

Parke, Davis & Company—

Boro-Chloretone.

Ovarian Substance Desiccated—P. D. & Co.

Capsules Ovarian Residue Desiccated-P. D. & Co., 5 grains

Tablets Ovarian Residue Desiccated-P. D. & Co., 5 grains.

Ovarian Substance Oesiccated-P. D. & Co.

Tablets Ovarian Substance Desiccated-P. D. & Co., 5 grains.

Swan-Myers Company—

Ampoules Dextrose 50 Per Cent., 20 Cc.—Swan-Myers.

New and Non-official Remedies

Arsphenamine-D. R. L. 0.3 Gm. Ampules. Each ampule contains arsphenamine-D. R. L. (New and Nonofficial Remedies, 1925, p. 47) 0.3 Gm. The Abbott Laboratories, Chicago.

Arsphenamine-D. R. L. 0.5 Gm. Ampules. Each ampule contains arsphenamine-D. R. L. (New and Nonofficial Remedies, 1925, p. 47) 0.5 Gm. The Abbott Laboratories, Chicago.

Neorsphenamine-D. R. L. 0.15 Gm. Ampules. Each ampule contains neorsphenamine-D. R. L. (New and Nonofficial Remedies, 1925, p. 49) 0.15 Gm. The Abbott Laboratories, Chicago.

Para-Thor-Mone-Lilly. - Parathyroid Extract-Collip.

A stable, aqueous solution containing the active principle or principles of the parathyroid gland of cattle, having the properties of relieving the symptoms of parathyroid tetany and increasing the calcium content of blood serum. It is standardized by its capacity to increase the blood serum calcium in normal dogs: one unit being defined as one one-hundredth of the amount of solution required to cause an increase of 0.005 Gm. of calcium in the blood serum of a 20 kilogram dog. Para-Thor-Mone-Lilly relieves the tetany of parathyreodectomized dogs and by its continued daily administration in small doses, further attacks may be prevented. The product is a most potent therapeutic agent and its use may be attended with great danger unless due precautions are taken. It is claimed to be a specific in parathyreopriva and to have relieved acute and chronic tetany following thyroidectomy, so-called idiopathic tetany and infantile tetany. Para-Thor-Mone-Lilly is marketed in 5 Cc. ampules, each Cc. of solution containing 20 units. Eli Lilly & Co., Indianapolis. (Jour. A. M. A., Nov. 14, 1925, p. 1559).

Neutral Acriflavine Jelly 1:1,000-Abbott. Neutral Acriflavine-Abbott (New and Non-

official Remedies, 1925, p. 134) 0.1 part, dissolved in karaya gum jelly, containing sufficient sodium hydroxide so that the finished product has a pH of from 8.3, to 8.5, to make 100 parts. Abbott Laboratories, Chicago. (Jour. A. M. A., Nov. 28, 1925, p. 1729).

Propaganda for Reform

Lactic Acid Milk.—New and Nonofficial Remedies brings out that there is considerable evidence in favor of the therapeutic value of soured milk—particularly of sour milk containing an abundance of living *B. acidophilus*. Whereas the administration of *B. acidophilus* has for its object the implantation of living *B. acidophilus*, there are reports which indicate that the administration of milk sugar may produce the same results through promoting the growth of acidurie bacteria normally present in the intestinal flora. (Jour. A. M. A., Nov. 14, 1925, p. 1578).

Vitanol Not Acceptable for N. N. R.—The Council on Pharmacy and Chemistry reports that Vitanol (Daub Chemical Co., Brooklyn), "the all year round tonic," is stated to have the following composition: "Egg yolk, 8%; Lecithin, 1.5%; Hemoglobin, 1.5%; Ferri Albuminate, 1.5%; Cod Liver Oil, 25%; Glycerin, 9.5%. Vehicle used contains sugar, terpenless oil of lemon, and whisky giving an alcoholic equivalent of 20%." Vitanol, being a complex and irrational mixture of uncontrolled composition marketed with unwarranted therapeutic claims and in a way to invite its indiscriminate and ill-advised use by the public, was found unacceptable for New and Nonofficial Remedies by the Council. (Jour. A. M. A., Nov. 7, 1925, p. 1504).

BIRTHS

Dr. and Mrs. Harold M. Bowcock, of Atlanta, announce the birth of a son, Harold M., Jr., January 11, 1926, at the Wesley Memorial Hospital.

Dr. and Mrs. R. H. Enzor, of Atlanta, announce the birth of "R. H., Jr.," January 19, 1926, at the Georgia Baptist Hospital. This is the Enzor's third child, the other two being girls, ages five and three and a half.

MARRIAGES

Dr. Arthur Hamilton Van Dyke, of Atlanta, and Miss Wadie Lon Boynton, of Fairburn, were married Saturday, December 19, 1925, in Chattanooga, Tenn. Dr. Van Dyke is one of the leading Eye, Ear, Nose and Throat men of Atlanta and is a member of the Fulton County Medical Society.

OBITUARY

Dr. A. M. Torbitt, after an illness of several months, died at his home in Gough, on the morning of December 24th, 1925. The funeral was held at the Baptist Church of Gough, of which he was a deacon, on Christmas morning. Dr. Torbitt was born in Burke County on May 22, 1859, and was the son of the late Dr. W. H. Torbitt. He was graduated from the Medical Department of the University of Georgia in 1887, immediately taking post-graduate work in New York at several of the hospitals and the New York Polyclinic Medical School. Dr. Torbitt was a great believer in organized medicine, being a member of the Burke County Medical Society in which he always took great interest. In point of continuous service he was the oldest practitioner in the County, having lived and died in the immediate vicinity of his birth. He is survived by his wife and one sister. Dr. R. L. Miller, of Waynesboro, and Dr. W. C. McCarver, of Vidette, were among those serving as honorary pall-bearers.

Dr. G. A. Burch departed this life December 27, 1925, while under the care of a doctor at Albuquerque, New Mexico, after a prolonged illness extending over a period of a year. Dr. Burch was born in Laurens County, Georgia, November 30, 1872, and after completing his education in the schools of that county he attended the Atlanta College of Physicians and Surgeons, graduating in 1901. Immediately after his graduation he moved to Florida to pursue his profession. However, he remained there only a short time before he came back to Georgia and located at Jacksonville, where he built up a

large practice and unlike most of his contemporaries a comfortable fortune. No one was better known in the medical profession, in the religious world and public life of Telfair County than Dr. Burch. He was a former President of the Telfair County Medical Society, County Health Officer for a number of years, and served as Commissioner of Roads and Revenue of Telfair County very creditably. Dr. Burch is survived by his wife and children and a host of friends.

Dr. A. K. Bell died at his home in Madison at the age of sixty-three. He was one of the most prominent and beloved physicians of Madison and a member of the Morgain County Medical Society. He is survived by his wife, one son, A. K. Bell, Jr., and one daughter, Carolyn Bell.

DR. EDGAR DISMUKES CRAWFORD.

Dr. Edgar Dismukes Crawford was born January 11, 1881, the second son of Dr. J. M. and Elizabeth Dismukes Crawford.

He attended the grammar schools of Atlanta and the Boys' High School, after which he graduated from the Law Department of Mercer University in the class of 1899. Dr. Crawford was shortly afterward admitted to the Bar in Atlanta, being the youngest man ever to receive this honor. The successful practice of Law, however, engaged his talents but a short time, as the precepts of his illustrious father prompted him to enter upon the study of Medicine at the Atlanta School of Medicine, receiving his degree of Doctor of Medicine in 1907, after an enviable record.

Immediately following his graduation, he visited the various European clinics, further perfecting himself in the practice of his specialty. Upon the completion of his studies he associated himself with his father, Dr. J. M. Crawford, and his brother, Dr. J. H. Crawford, in the practice of his chosen profession, and continued the partnership with his brother until his untimely death.

He was an active member of the Druid Hills Baptist Church for many years, and was ever willing and ready in furthering the teaching of Christianity. He was one of the founders of the church and as a member of the Finance Committee, gave unstintingly of

his time and means in the campaign for funds to erect a new building.

He was also a Scottish Rite Mason, a member of the Shrine, the Staff of St. Joseph's Infirmary, an alumnus of the S. A. E. Fraternity, and was instructor in Diseases of the Eye, Ear, Nose, and Throat in his Alma Mater until the merger with the College of Physicians and Surgeons. He was a member of the County, State, and National Medical Associations as well as the Atlanta Ophthalmological Society, and always exhibited a keen interest in the promulgation of any plans for the advancement of these organizations. No worthy plea, either for private or public duty was ignored by him, and once a task begun, it was always successfully and creditably completed.

He died January the first, nineteen hundred twenty-six, after a brief illness.

Dr. Crawford is survived by his wife, the daughter of Dr. B. D. Gray, Secretary of the Baptist Home Mission Board; two daughters, Misses Carolyn and Frances Crawford; one son, James Crawford; two brothers, Dr. J. H. and B. C. Crawford; and one sister, Mrs. J. D. Rhodes.

His father, Dr. J. M. Crawford, one of the nestors of the Eye, Ear, Nose, and Throat profession in the South, passed on but a few months before.

In the death of our esteemed brother and co-worker, Dr. Edgar D. Crawford, the profession has lost a capable and willing worker, whose only aim was the relief of human suffering, his family an affectionate father and husband, whose every thought was for their well-being, and all of us a true friend, who never wavered and was always ready with kind words of friendship in our hour of sorrow.

Be it resolved, that we extend to the members of his bereaved family our deepest sympathy, and that this resolution be spread upon the minutes of the Fulton County Medical Society, and that a copy be sent to the Journal of the Medical Association of Georgia for publication and a copy to the members of his family.

Olin S. Cofer, Chairman,
W. S. Goldsmith,
W. L. Champion.

DR. EDWARD CORNELIUS CARTLEDGE

Dr. Edward Cornelius Cartledge was born in Franklin County, March, 1868; was educated at the Atlanta Public Schools, and attended the N. G. A. College, Dahlonga, Ga., which is a branch of the University of Georgia.

He graduated in 1895 at the Atlanta Medical College, subsequently continuing the study of medicine in New York. He was interne for two years at Grady Hospital, being house surgeon the last six months of this period. He practiced medicine in Atlanta for about twenty-five years when his health failed, and he went to New Mexico.

He died in Atlanta, Georgia, November 28th, 1925.

Dr. Cartledge is survived by his wife, who was Miss Mary Rounsaville, Rome, Georgia, and one adopted son, LeRoy, and three sisters, Mrs. V. Jarvis Mrs. May C. Clarke and Miss M. Cartledge. His father was Joseph Wilson Cartledge and his mother was Miss Harriet Alexander before her marriage.

Dr. Cartledge was a member of the Central Presbyterian Church, the Fulton County Medical Society, the American Medical Association, the Palestine Lodge of Masons, and the Kappa Sigma Fraternity.

God has seen fit to remove from our midst our beloved fellow physician and friend, Dr. Edward Cornelius Cartledge.

Be it resolved: That we extend to the members of his family our heartfelt sympathy, and that this resolution be spread upon the minutes of the Fulton County Medical Society, a copy sent to the Journal of the Medical Association of Georgia, for publication, and a copy to the members of his family.

M. C. PRUITT, Chairman.
W. L. CHAMPION.
JAMES N. BRAWNER.

HOSPITAL FOR RENT

A new modern hospital completely equipped with all modern conveniences. Capacity 50 beds. Two operating rooms. Complete x-ray equipment. Will lease for one or five years. For details address: "R. H. McF.", c/o the Journal, 65 Forrest Avenue, Atlanta.

Medical Progress

Department Editors

Anderson, W. W., Pediatrics
 Ballenger, E. G., Urology
 Bartholomew, R. A., Obstetrics
 Block, E. B., Neurology and Psychiatry
 Clay, Grady E., Ophthalmology
 Dowman, C. E., Neuro-Surgery
 Eguen, M. S., Otology, Laryngology and Rhinology
 Flitts, Jno. B., Internal Medicine
 Greene, E. H., Surgery

Hodgson, F. G., Orthopedics
 Holmes, Walter R., Gynecology and Female Urology
 Jones, Jack W., Dermatology
 Klugh, Geo. F., Clinical Pathology
 Landham, J. W., X-Ray and Radium
 Pruitt, M. C., Proctology
 Thrash, E. C., Internal Medicine
 Waits, C. E., Surgery

THE PROGRESS OF CLINICAL PATHOLOGY IN 1925

The past year has seen marked progress toward the realization of the aims of the American Society of Clinical Pathologists organized four years ago for the purpose of giving the best possible service in clinical pathology to the people and the medical profession of America. Its membership comes from all of America, with training and experience as the basis of qualifications. With the aid of the American Medical Association and the American College of Surgeons, hospital laboratories are being urged to give better laboratory service and approach as nearly as possible the ideal as regards routine examinations and special consultations by competent pathologists. In this way, by cooperating with the internist and the surgeon, better diagnosis and better treatment is being made possible with more satisfaction to all.

The special fields of clinical pathology which have made most rapid strides in the past year are metabolism and blood chemistry. These closely related studies are solving many of our problems of medicine and surgery. Basal metabolism readings make it possible to diagnose and classify cases of hyperthyroidism and to control subsequent treatment. Conversely, hypothyroidism present in many obscure conditions can be diagnosed in no other way. By eliminating these conditions in persons underweight and overweight, correct valuation can be given of symptoms present. Blood chemistry findings are dependent on the various phases of metabolism, and it is not too much to hope that, when we understand protein metabolism, as well as we do sugar metabolism,

essential hypertension and certain cases of renal and cardiac disease can be controlled by supplying the deficiency as is done in diabetes. Recent experiments have shown that guanidine in small quantities raises blood pressure, and that certain liver extracts lower blood pressure in cases of hypertension. This gives the old theories of intestinal stasis, autointoxication and biliousness more concrete form with prospects of eventually finding a remedy for these conditions.

Serum therapy has made a step forward in two conspicuous instances by means of purified and concentrated sera. First, pneumococcus antibody solution. Second, a purified and concentrated scarlet fever antistreptococcus serum. These products contain the active portions of the respective sera without the more toxic and useless proteids. Heretofore the necessity of giving large doses of serum, in order to give the patient sufficient antibodies, has militated against the general use of sera in the treatment of disease. The success with these two sera paves the way for similar work with other sera, notably antimeningococcus serum and antistreptococcus serum. Besides these outstanding examples of laboratory achievement, old laboratory methods are being improved upon and simplified where possible, and many new tests are being tried in an experimental way.

GEORGE F. KLUGH.

CHOLECYSTITIS AND CHOLELITHIASIS IN YOUNG CHILDREN

Three cases of gallbladder disease in children under 10 years of age are reported by C. C. Snyder, Pasadena, Calif. (Journal A. M. A., July 4, 1925). The children were aged 4, 5½ and 9½ years, respectively. The patients were operated on, and in each case drainage was followed by uneventful recovery. The pre-operative diagnosis in these three cases was acute appendicitis.

Proceedings of The Seventy-Sixth Annual Meeting of Medical Association of Georgia Atlanta, May 13, 14 and 15, 1925

(Continued from January issue, page 32)

MINUTES OF THE COUNCIL

FIFTH DISTRICT

This district has a paid up membership of 312 as against 377 last year. This reduction is almost entirely in Fulton County and probably may be explained by comparatively high dues, required of the membership, in order to pay for the home of the Society.

The comparative roll, at present, is as follows:

County	1924	1925
Campbell	7	7
DeKalb	14	10
Douglas	2	3
Fulton	354	292
Rockdale (Not organized).....		

Total.....	377	312
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This district was organized into a District Society this year and it is hoped that such organization will be of benefit in securing a larger membership in outlying counties.

The component societies are to be congratulated upon the apparent nature of the professional work accomplished.

Respectfully submitted,

W. C. LYLE,
Councillor, Fifth District.

SIXTH DISTRICT

Bibb County shows 86 members 1924; 75 members 1925. Letter attached from the Secretary showing 16 whites who are not members of the County Society. It seems most of these men have been refused membership in this society.

Butts County has 7 men in 1924 and 7 in 1925. This County Society is having some trouble with Dr. James C. Woods. I made a trip to Jackson and met with the County Society to try to get this matter settled and think it should be, letter attached.

Henry County showed 8 men in 1924, 6 in 1925. I have a letter from their Secretary

stating that they have three eligible men who are not members. I wrote each one of these men and had no reply, letter attached.

Fayette and Clayton Counties showed 7 in 1924, 6 in 1925. I have been unable to hear from their Secretary.

Lamar County showed 7 in 1924, 7 in 1925—100%.

Monroe County showed 7 in 1924 and 7 in 1925. Letter from their Secretary says they have one man, Dr. S. H. Smith, who is eligible and not a member. I wrote Dr. Smith and had no reply, card attached.

Pike County showed 9 in 1924, 9 in 1925—100%.

Spalding County showed 16 in 1924, and 13 in 1925.

Upson County, 7 in 1924 and 10 in 1925—100%.

Crawford County has only two doctors, both are members of Bibb County Society.

Jasper County, 6 in 1924, 6 in 1925; no letter from Secretary.

Sixth District—Membership Report Up to May 10, 1925

County	1924	1925
Pike (100%)	9	9
Spalding (Trouble with dues).....	16	13
Butts	7	7
Upson (100%)	7	10
Fayette-Clayton	7	6
Monroe (100%)	7	7
Henry	8	6
Jones	4	3
Jasper	6	6
Bibb	86	75
Lamar (100%)	7	7
Crawford (has only two doctors—both members of Bibb County).		

Total.....	161	141
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Respectfully submitted,

M. M. HEAD,
Councillor, Sixth District.

SEVENTH DISTRICT

Our membership one year ago for the district was 121 in contrast to a present membership of 131. Within the next few days it is my opinion that the present membership will include several more. We have nine fully organized societies this year in contrast to only eight last year. Three of our counties are too small to have organizations but we have members from these counties who have joined neighboring county societies. There is one county in the district which has enough members to organize, but so far, I have been unable to get any response to any activities on my part to get them organized. The county to which I refer is Haralson. There is only one paid member in this county, yet they have enough of eligible members to maintain a society of about ten. I don't know why they are so indifferent in their attitude towards the state medical association or for a local organization. I have never known a physician from Haralson county to be present at one of our district meetings and have never gotten a response to any letter I have ever written to any of the physicians. Dr. W. Harvey Malone is the only paid member in this county. There might be some excuse for their non-attendance of our district society meetings on account of Haralson being rather remote from other portions of the district where meetings are held, yet I see no excuse for indifference on the part of such excellent medical men, as live in Haralson, county, for not maintaining a county organization and supporting the state association. I will renew my efforts with them during the coming year.

I have visited a number of the county societies during the past year and have discussed various phases of organization, from all of which I received excellent cooperation.

We hold district society meetings twice each year in different parts of the district and they are always well attended and much interest taken, in fact it has been said that we have one of the best district societies in the state.

We have lost two of our physicians by death and at least one by removal from district during the past year.

Our success in bringing the district up to

its present standard is largely due to the splendid cooperation of our president, Dr. J. O. Elrod, our state secretary, Dr. Allen H. Bunce, and the Vice Councillor of the district, Dr. J. H. Hammond, of LaFayette.

Our report by counties up to May 10, 1925, is as follows:

Counties	1924	1925
Bartow	15	14
Catoosa (Not Organized).....		
Chattooga	12	11
Cobb	13	19
Dade (Not organized).....		
Floyd	30	29
Gordon	13	12
Haralson	1	1
Murray (Reorganized in 1925)		5
Paulding	1	2
Polk	12	12
Walker	14	15
Whitfield	10	11
Total.....	121	131

Respectfully submitted,

M. M. McCORD,
Councillor, Seventh District.

EIGHTH DISTRICT

I respectfully submit the following report for this year:

Clarke County has 30 this year against 27 last year. This is a 100% membership as all the men are members that the Society cares to affiliate with.

Elbert County has 13 against 13 last year.

Franklin, 13 against 13 last year.

Green, 2 against 2 last year and have absolutely been unable to get a meeting in Green.

Hart reports 10 against 9 last year.

Madison, 9 against 9 last year.

Morgan, 8 against 8 last year.

Newton, 6 against 7 last year.

Oconee has only 1 regular physician in it and the other six are Eclectics and are widely scattered.

Oglethorpe County has no report, but three of their men are members of the Clarke County Society.

Putnam County, my information from Dr. Bunce is there is no report from this county, but I have a letter from Dr. S. A. Clarke,

dated May 1, saying there are only 4 physicians in the county and they have all paid. This puts Putnam in the 100% list.

Walton has 9 against 4 last year.

Wilkes, 10 against 11 last year.

This gives me 114 for 1925 and 103 for 1924. There is an increase of 11. I would like to state also that there has never been as much effort brought forward before to bring the Eighth District up to perfection as there has been this year. I am very much indebted to Dr. R. W. Simpson, Pres. of Eighth District Medical Association, and Dr. D. M. Carter, Sect. of the District, for their valuable assistance. They have been untiring in their efforts in meeting me with the different societies using their influence for the organization.

Respectfully submitted,

H. M. FULLILOVE,
Counsellor, Eighth District.

NINTH DISTRICT

Members

Counties	1921	1922	1923	1924	1925
Banks	5	4	2	4	3
Barrow	6	3	.....	6	4
Blue Ridge	9	6	5	10	6
Cherokee	10	10	10	10	10
Dawson	.....	.....	.....	.....	.....
Fannin (Blue Ridge)	.....	.....	.....	.....	.....
Forsyth	.....	.....	.....	7	7
Gilmer (Blue Ridge)	.....	.....	.....	.....	.....
Habersham	6	10	8	13	10
Hall	12	14	23	23	22
Jackson	16	16	14	15	14
Lumpkin—	.....	.....	.....	.....	.....
(2 in Hall)	.....	.....	1	.....	.....
Milton	.....	.....	.....	.....	.....
Pickens	2	1	1	1	1
Rabun (2)	.....	.....	.....	.....	.....
Stephens	10	11	.....	10	10
Towns	.....	.....	.....	.....	.....
Union (Blue Ridge)	.....	.....	.....	.....	.....
White (2 in Hall)	1	1	1	.....	.....
Gwinnett	3	9	5	9	11
Total	80	85	71	108	98

Respectfully submitted,

C. D. WHELCHER,
Counsellor, Ninth District.

TENTH DISTRICT

Membership Report Up to May 10, 1925

Counties	1924	1925
Baldwin	22	23
Glascocock (Not organized)	.....	.....
Columbia (Not organized)	.....	.....
Hancock	1	1
Jefferson	1	N.O.
Lincoln (Not organized)	.....	.....
McDuffie	4	6
Richmond	72	64
Taliaferro	4	.....
Warren	6	5
Washington	22	21
Wilkerson (Not organized)	.....	.....
Total	132	120

In submitting this report I am not unmindful that the Tenth District is imperfectly organized. Much effort has been made to remedy the conditions existing there, but to very little avail.

With Dr. R. L. Miller, of Waynesboro, I visited the physicians of Louisville, and succeeded in re-organizing the Jefferson County Medical Society. While the organization lasted for only a brief period, I am gratified to report that most of the physicians who were members of this society have joined the Richmond County Medical Society.

An organization in Lincoln and Columbia Counties seems impracticable as few physicians reside in these localities. However, most of them have placed their membership with Richmond County.

Glascocock, Hancock, Taliferro and Wilkerson counties remain unorganized. An absence of several months from the state has made it impossible for me to re-establish organizations in these counties.

In conclusion, I would like to state that the Tenth District Medical Society held one meeting during the past year and it was considered a very distinct success.

Respectfully submitted,

S. J. LEWIS,
Counsellor, Tenth District.

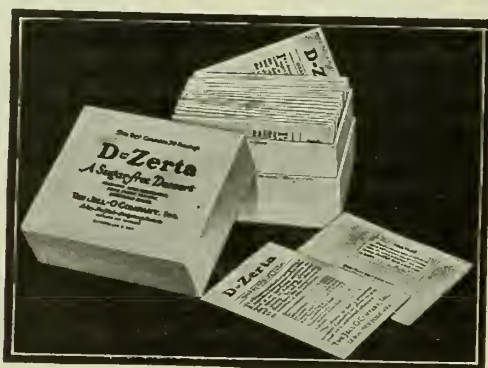
TWELFTH DISTRICT

Membership Report Up to May 10, 1925

Counties	1924	1925
Bleckley (Ocmulgee).....		
Dodge (Ocmulgee).....		
Emanuel	12	13
Houston	6	1
Johnson	5	5
Laurens	23	15
Montgomery	3	1
Ocmulgee	15	12
Pulaski (Ocmulgee)		
Telfair	13	15
Toombs	6	6
Twiggs	4	3
Wheeler	3	N.O.
Wilcox (Not organized).....		
Total.....	90	71

Respectfully submitted,

T. C. THOMPSON,
Councillor, Twelfth District.



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Original Articles

ADHESIVE MEDIASTINO-PERICARDITIS*

Eugene E. Murphey, M.D.

Augusta, Georgia

A Review of One Hundred Cases

Since the great Influenza Pandemic of 1918-19 it has been observed, both in private work and in the wards of the University Hospital that a relatively large number of cases of this condition present themselves for treatment or for diagnosis. In former years adherent pericardium was not infrequently encountered but the disproportionately large number of cases occurring since 1918 as compared with those in the two decades preceding, seems to me to warrant the presentation of this paper before this body.

If our experience in one hospital is paralleled by that of other institutions in this and in other states, we are presented with a problem of considerable magnitude and one which by reason of the chronic nature of the process must continue a problem for several decades to come.

So definite is the picture and so clear is the history which the majority of these patients show, that when one is once familiar with the symptom-complex there should be but little difficulty in its recognition.

The most important of the subjective symptoms is that of precordial pain varying in degree from slight distress to quite severe discomfort. Occasionally it is even anginous in character, is exaggerated by physical exertion, especially by such exertion as will produce a definite dyspnoea. In the absence of exertion the sense of discomfort or pain

may frequently be induced by forced inspiration and is sometimes brought on by raising the arms above the head. It is often described as a subjective sensation of pulling or "a catch" when deep breathing is attempted, is sometimes referred to the upper epigastrium rather than to the precordium, and occasionally radiates up into the left shoulder and down the left arm.

Next in frequency to the pain referred to is fatigue out of all proportion to the amount of effort expended. These patients complain that they tire easily and are no longer able to carry on the tasks or exercises which were formerly easy, and so far as their response to fatigue is concerned they present a picture very similar to that of an effort syndrome without, however, the pulse acceleration which characterizes that condition.

A certain percentage of cases complain of dizziness after exertion and one case has had repeated syncopal attack following exertion of only moderate degree.

While our series of cases number now nearly two hundred this analysis will deal only with the first one hundred which were observed and studied.

It is on inspection that many of the most striking phenomena associated with this condition are to be observed. In order of relative importance one should note a systolic retraction replacing the normal apex beat of the heart, retraction in the third and fourth interspaces along the border of the left lung, systolic retraction at the epigastrium or the substernal notch frequently so

*From the Department of Medicine, University of Georgia.

*Read before the Medical Association of Georgia, May 14, 1925.

pronounced as to cause an indrawing of the whole cartilaginous tip of the sternum, and retraction posteriorly in the tenth or eleventh interspaces in the midscapular line (Broadbents sign). This retraction in the epigastrium must carefully be differentiated from the infalling of the epigastrium under atmospheric pressure which is a normal phenomena. Of equal importance with the apical and precordial physical signs, although less obvious to casual examination are the changes occurring in the pulse, particularly the occurrence of the *pulsus paradoxus*, in which during normal inspiration the pulse is found to be slowed in rate, lessened in force and diminished in volume or even to disappear. This condition has been definitely recognized as being associated with pericardial adhesions for many years and more recently has been recognized to be equally associated with pericardial effusions. It has been the matter of much controversy and discussion since it was first described by Griessinger in 1854 and by Kussmaul in 1873, has been at times regarded as without significance, has been at other times regarded as having almost pathognomic significance, but in quite recent years careful study and experimental work have shown that its association with pericardial adhesions and effusions is fairly constant and its method of production and operation confirmed by experimental work.

It is not within the scope of this paper to touch other than casually upon this subject.

Suffice it to say that the occurrence of this striking change in pulse rhythm is due to the fact that the flow of blood into the heart is impeded during inspiration and as a result an underfilled ventricle does not deliver a normal volume of blood at each systole, and that this variation is due not so much to traction on the heart and vessels at it is to increased variations in intra pleural pressure during inspiration and expiration.

Under the fluoroscope the changes in the rate of heart action and the alteration of its shape and size becomes strikingly apparent as does also the lifting of the diaphragm and of adjacent structures with each contraction of the heart. Those cases in

which the adhesions to the diaphragm are most pronounced and extensive show with each inspiration an elongation of the heart in which the apex impulse travels downward and to the right and in extreme instances the organ becomes almost fusiform in shape and coincidently with this, slowing of the pulse rate is most apparent. Just here it is important to stress the fact that these phenomena should occur during ordinary deep and full inspiration inasmuch as they may be simulated by forced inspiration in the normal individual.

Age. In the series of cases the oldest patient was seventy-six, the youngest five, the average age was twenty-nine years. There were eighty-two males and eighteen females.

Diseases of Childhood: Nothing of special note except the high percentage of pneumonia in childhood, twenty-three cases give a definite history of pneumonia under twelve years of age.

History of Acute Infections: Influenza 85, Empyema 6, "Rheumatism 5," Lobar-pneumonia 3, Small-pox 1.

Onset of First Symptoms: The average time after presumable recovery from influenza, when subjective symptoms or precordial distress were noted was six weeks.

Pain: Referred to the precordium 76, to the epigastrium 12, to the left upper chest (second, third ribs) 5, left arm and shoulder 3, back 2, no discomfort 2.

Severity of Pain: The pain was described as acute in 34 cases, as moderate in 40, as slight or negligible in 24, and no history of pain could be elicited in 2 cases. One case of acute pain was strictly nocturnal and occurred only when the patient slept upon his right side, at which time it was of sufficient severity to arouse him from sleep.

Duration of Discomfort: The average length of time over which the patient complained of subjective symptoms from onset to disappearance is about fourteen months.

Cough and Dyspnoea: Uniformly negligible except upon exertion or after certain postures.

Discomfort Other Than Pain: Fullness and discomfort after eating were complained of in twenty-four cases, a sensation of heaviness or dragging over the liver was present

in twelve. A "catch" on deep breathing or attempting to raise the arms above the head in fifteen cases.

Distribution of Tug:... The apical tug alone in twenty-four cases, epigastric tug alone in eighteen cases combined apical and epigastric tug in forty-four cases, Broadbent sign visible in thirty-two cases of this series. The veins of the neck were overfilled in twenty-two normal or underfilled in seventy-eight.

Pulsus Paradoxus was present in varying degree but definitely recognizable in sixty-four per cent of the cases studied, while diastolic collapse in the veins of the neck could be made out in twenty-four per cent.

Changes in Heart Outline: Under the fluoroscope of the heart assumed a fusiform outline in 56% of the cases studied.

If, as we believe to be the case, there are a great number of individuals developing or carrying with them the fixed sequelae of pericardial and mediastinal inflammation as the result of the acute respiratory infection still prevalent since their recent introduction; it is important that the general practitioner should be familiar with this symptom complex, inasmuch as many cases will inevitably come before him for diagnosis, for treatment and for advice. That the definite symptom complex: precordial distress amounting frequently to acute pain, undue fatigue on exertion, a lessened ability to respond to the ordinary demands of labor or exercise, associated with definite physical signs, demonstrable by inspection of the chest wall, by careful study of the pulse and by fluoroscope observation exists, is to my mind indisputable.

The recognition of this condition is important from more than one angle. Many of these individuals believe themselves to be victims of serious and perhaps imminently fatal heart lesions and it is most important that the profession should be able to reassure them and to make them understand that however marked their discomfort may be that their condition is not one which need necessarily shorten materially their normal expectancy of life. It is also important in order that we may be able to secure the active and understanding co-operation of the

patient during the period when we are attempting to aid nature in its adjustment to the limitation under which the individual's circulation must carry on, for the relief of these extra-cardiac disabilities must eventually come, as does the relief from so many valvular lesions, by the acquisition and the maintenance of as efficient an hypertrophy as can be secured.

We must bear in mind that we are dealing always with the sequel of an acute inflammatory reaction which at the time of its incidence was unrecognized or unrecognizable, but of which the results are continuous and persistent, but which may largely be minimized by proper care until the individual has readjusted himself to his circulatory embarrassment. Just here it seems well to stress the importance of a more careful and alert watchfulness for the acute pericarditides occurring during influenza, pneumonia and similar respiratory infections, since the early recognition and appropriate treatment will tend greatly to minimize extensive adhesive processes.

Treatment of the end results of a previous inflammatory process, naturally must depend but little upon drugs, but almost wholly upon the building up of the individual and teaching him to overcome by strengthening his heart muscles the disability which is present. In the early cases, four, six or eight weeks after the preceding acute infection, the expenditure of energy on the part of the patient must be rigidly prohibited, but it is most unwise to impress him with the idea that he is condemned to a sedentary or valedudinarian existence. His nutrition should be brought up to the highest possible point and little by little as the judgment of the attending physician directs, he should begin to take up light exercise, beginning with graduated walking a little later, swimming and deep breathing exercises along with golf if the social status and mentality of the patient be such as to make golf a possible diversion; then as the patient finds himself able to take on more and more of an active life to encourage him to do so to the fullest extent. It has been my experience that eighteen months of physical training, usually works wonders with these cases. The administra-

tion of drugs are useless except for the combatting or alleviation of distress, and time, nutrition and graduated exercise are the three things upon which we must rely to restore these individuals as nearly as may be to normal health and activity.

In conclusion, I wish to reiterate my impression:

1. That there has been an enormous increase in this inflammatory sequel as a result of the recent pandemic of influenza and pneumonia.

2. That many of these cases are being missed and overlooked by the profession.

3. That the precordial distress from

which these patients suffer tends to create in the minds of many of them the belief that they are suffering from organic heart disease and renders them an easy prey for incompetence and charlatanism.

4. That the symptom complex is a definite, easily recognizable clinical entity.

5. That the prognosis so far as expectancy of life and reasonable activity is concerned is excellent.

6. Physical training and rehabilitation, together with the establishment of a proper mental attitude, are the main ends toward which the doctor and his patient should strive in unison.

P. II.— **Scheme for Investigation of Pericarditis Cases**

Age	Occupation	Sex	Diseases of Childhood	History of Acute Infections

P. I.— **ONSET OF FIRST SYMPTOMS**

Location	Severity	Effect of Exercise	Effect of Fatigue

SUBJECTIVE SYMPTOMS

Pain	Location	Severity	Duration	Discomfort Other Than Pain

Cough and Dyspnoea

--	--	--	--

OBJECTIVE SYMPTOMS

Apical Tug	Epigastric Tug	Broadbent's Sign	Condition of Vessels of Neck

Pulsus Paradoxus

Diastolic Collapse

--	--	--	--

OTHER SYMPTOMS NOT NOTED ABOVE

A—Subjective	B—Objective

FLUOROSCOPIC FINDINGS

A—Change of Apex Beat	B—Location and Nature of Tug	C—Change in Heart Outline

Discussion on Paper of Dr. E. E. Murphey

DR. V. P. SYDENSTRICKER, Augusta, Ga.: The condition Dr. Murphey has described is particularly evident in the outpatient department, where many patients come for treatment. The way the diagnosis ranges from pleurisy, indigestion and all the way up is astonishing. A few patients have been told that they had angina and they lived in constant fear of sudden death. There is some excuse for that for precordial pain is a constant symptom. Not infrequently careful inspection is all that is necessary to make a diagnosis, although in some instances only the fluoroscopic examination will verify the diagnosis which is guessed at by the symptoms. The amount of physical disability is insignificant, but the mental disability is enormous. We encounter many laborers who have given up work and live in constant fear of sudden death because of the precordial pain. In these cases reassurance is usually all that is necessary. They are told to go back to the mill, or what-not, do a moderate amount of work and increase it as time goes on. Drugs have no effect. Distension of the stomach seems to produce cardiac pain in these patients to a much greater degree than in people with a normal heart. The pain may be agonizing in character and it is not uncommon to have patients come in to the clinic who have been given doses of morphine for nothing more than a mild degree of pylorospasm and a mild degree of adhesive pericarditis.

DR. E. C. THRASH, Atlanta, Ga.: Dr. Murphey is to be congratulated upon the work he has done. He not only has taken care of his patients through life, but has followed them to the dead room and has worked out things which we have not known before. His work should attract general attention. Probably I am a little biased on the subject, but I think he is one of the best students of medicine I have ever known. He is one of the best analysts. He goes into his work thoroughly and when he makes a statement it is based upon careful study.

We thought but very little about this subject until 1918. In 1918 we had the first epidemic of influenza following the one of 1889. We had gone for thirty years and had forgotten these severe infections after what we called "the grippe" in those days became less and less severe, until it was negligible. Then when we got a lot of men congregated together, giving their germs to those who had less immunity than themselves, transmitting streptococcic infections. When these severe infections came upon us

we were dazed. We were at sea. When the conditions began to clear up and finally the storm was over there were sequelae which we could not understand. Dr. Murphey has taken up these sequelae and studied them carefully and deserves much credit for it.

If there was any one thing that helped us in the epidemic of 1918 compared with that of 1890 and '91 it was the fluoroscope. The fluoroscope now gives us information which we could obtain only in the dead room before. We can now see in this way almost what our forbears saw at necropsy. We can tell these patients that they have the results of disease, and that the only thing to do is to conserve their health, and that we will do the best we can for them from a medical standpoint. The most important thing of all is for the surgeon to look out for these conditions. Adhesive pericarditis has been operated upon for appendicitis, for infected gall-bladder, for almost everything to which the abdomen is subject. I wish to offer a word of warning for you to study the thorax before you open the abdomen. I do not wish to criticize the surgeons, but they have opened many abdomens before asking an internist to give them information regarding the thorax. They are good and loyal men, and I am for them, but they do not give the clinicians the credit and the recognition of ability that we give them.

DR. THOMAS E. ROGERS, Macon, Ga.: I wish to endorse what Dr. Thrash says. I have recently seen two of these patients who had been operated on, one had an appendectomy and the other a cholecystectomy. I have recognized several of these cases but since hearing Dr. Murphey's paper I realize that there were others that I did not recognize. We know from our experience with influenza and pneumonia that we can often predict an empyema or an adhesive pleurisy when they recover from the other condition, and if we remember that they may have adhesions in the mediastinum the same as in the parietal pleura, and remember this later when we see them and take their history, keeping in mind the fact that they had pleurisy or influenza or pneumonia, we will recognize many cases we have passed up before. Then we can explain to these patients many of the symptoms that we have not heretofore been able to explain, and we may also do something for them.

DR. E. E. MURPHEY, Augusta, Ga., (closing): In conclusion I wish to thank the gentlemen for their discussion.

I also wish to stress the points brought out by Dr. Thrash and Dr. Rogers. Namely,

that the pre-operative examination will prevent many operations. I have seen such patients operated for gastric and duodenal ulcer.

Another thing that seems to me very important is to have every man realize that he does not, in 85 per cent of the cases, need any fluoroscope or X-ray apparatus to help him to his conclusions. If he will use his two eyes, his ten fingers, his two ears and his common sense the good Lord gave him when he started out he can make the diagnosis in the great majority of these cases.

We miss these signs because of improper and slack examination of the chest.

Another point is this: regard every case of influenza, or pneumonia, or intrathoracic infection of any sort, as a starting point for pericarditis. Unless they are carefully handled there will inevitably be adhesions that will annoy the patient for the rest of his life. It is surprising how many of these cases of pericarditis one can pick up by the dry friction rub, if we are only sufficiently attentive.

TREATMENT OF PNEUMONIA*

E. C. Thrash, M.D.

Atlanta, Georgia

Exhaustive investigations as to Etiology, Symptomatology and Pathology of diseases are only means to an end, and that end is to alleviate and cure the sufferer. The treatment of pneumonia should consist of efforts to comfort and sustain the patient while he is establishing immunity. This is all that we can accomplish and when we attempt more, harm usually results from our efforts. Trying to cure pneumonia with drugs has been more tragical than spectacular. In most cases there is no treatment necessary except to look after the patient's comfort. In all cases if the physician is not master of the nature of the disease and of the drugs he intends to handle, he should better be satisfied simply to keep his patient comfortable. All remedial agents that have value in sustaining the patient is dangerous when not properly handled. No time will be devoted to means of alleviating discomfort because these measures are familiar to all. In discussing the means of sustaining the sufferer the following facts must be kept in mind:

Pneumonia is characterized by profound intoxication and pulmonary exudation, both of which react upon the heart by putting it upon the strain of pumping blood through a consolidated lung with a muscle structure in the cells of which the intoxication has produced albuminous degeneration. This is why the heart universally fails in fatal pneumonia and why it should have our almost undivided attention.

Only methods for alleviating intoxication

and supporting the heart will be considered. Alleviating intoxication will receive our attention first because it appears first and later produces heart complications which are so problematic. There are two beneficial methods of minimizing intoxication. One is by using chemicals the introduction of which inhibit and kill bacteria by giving maximum amount of inhibition and poison to the germs and a minimum amount to cells of the host. These chemicals consist chiefly of dyes and soluble quinine. The other method is the introduction of biological products in the form of serums or other proteins in an effort to aid in establishing immunity. These antitoxic and bacteriotropic agents whether chemie or biologic should be used only in the beginning of the disease and should not be considered a part of one's armamentarium after cardiac changes have taken place. There is some uncertainty as to whether the chemie or biologic agents have the greater value, but it is not the part of wisdom to use them conjointly. One should decide upon which one one will use and after this not resort to the other. As a general rule chemie agents give better results in broncho-pneumonia and biologic ones in lobar types.

Since all potent remedial agents are dangerous, one should keep well away from the breakers, making caution the watch-word at every step. The dyes often produce spectacular results and if properly administered, some good will always come from their use. I have used only gentian-violet and mercurochrome. I prefer the latter. One should give 10 c.c. of a one per cent solution to patients weighing from 100 to 125 pounds. This

*Read before the Medical Association of Georgia, May 14, 1925.

should be injected slowly because rapid injection produces profound shock upon that portion of the blood with which the chemical comes in immediate contact. If no reaction occurs, the following day this dose can be increased to $12\frac{1}{2}$ c.c. If there is a reaction characterized by high fever and chill, the dose should not be increased. If, after the second dose, there is still not a reaction, the third may be administered consisting of 15 c.c. It is not wise to give more than three doses, especially of mercurochrome. Late reactions are characterized by stomatitis and sometimes by a sloughing of the structures of the mouth. It should never be administered if the person has previously been salivated. Children tolerate it much better than adults and it produces better results in them. Its early administration in children is almost a specific in the cure of pneumonia. Gentian-violet is milder in action and should be used instead of mercurochrome when the heart or kidneys are seriously affected or where the shock of reaction might not for any other reason be safe.

Quinine-dihydrochlorate given in $7\frac{1}{2}$ grain doses intra-muscularly or intra-venously have apparently produced good results in the hands of many clinicians. I have had no experience with this remedy. It is recommended to be given in the beginning of the disease in doses of one-half gm. in 2 c.c. of water for three successive days, and seems to aid greatly in inhibiting bacterial activity.

My experience in the use of biologic agents has been that polyvalent serum will cure most cases of type I pneumonia and will usually improve other lobar types. My reason for using polyvalent instead of type I is that the germs of no pneumonia consist exclusively of any one type. There is always a dominant one with the other types playing minor roles. It should be given in doses of 50 c.c. daily until three doses are administered. If results are not obtained it will be useless to pursue this course further. If results are obtained the patient usually has had sufficient amount to tide him over. This quantity never does harm unless there is anaphylaxis. I have long since discontinued typing pneumonia for the reason that too much time is lost in treatment, and fur-

thermore the sputum obtained does not always come from the pathologic lung area. It is more apt to come from the outlying portions of the lung and the germs in these outlying areas are usually typed III and IV and not virulent and not the offending organisms. In other words, typing is worthless unless brick-dust sputum is obtained and by the time this can be obtained one should have already differentiated the pneumonia. Most of the lobar forms are benefitted by polyvalent serum. None of the bronchial pneumonias appear to be effected perceptibly by the use of this remedy. My plan is to use the serum in lobar pneumonia and trust to other means with bronchial forms. As stated above, use serum in lobar and chemicals in bronchial pneumonia. In reference to the antigens, bacterins and vaccines for the purpose of producing active immunity, I shall dismiss them simply by stating that in my opinion they have no place in acute fulminating diseases, but their field of usefulness is in diseases of a more or less chronic nature.

Caring for the heart in pneumonia requires greater skill than in treating any other disease. There are two outstanding problems confronting the therapist. One is working out the best means to relieve the heart of its load, the other the best to strengthen it and better enable it to carry this load; that is, our efforts should be to strengthen the carrier and lessen the load. To do this is not simple. The right side of the heart stands in the first line trenches and much exposed from the standpoint of danger. The walls are by nature extremely thin because it has little work to do. It has only to pump the blood through loosely constructed lungs that lie in contact with the heart and around it, with gravity in its favor. When the lung becomes engorged and consolidated, this work is not only more than doubled on account of such consolidation, but the muscle structure is degenerated and weakened from bacterial intoxication. Nature has done much to safeguard the right ventricle in emergencies. The tricuspid valve is purposely poorly constructed. As soon as the thin walled right ventricle begins to dilate, a leak of the tricuspid is estab-

lished. This leak acts as a safety valve to prevent the ventricle from blowing up in an effort to pump blood through an engorged lung. The hepatic and mesenteric veins can carry a great quantity of surplus blood. So the right heart is protected by a back flow of blood into these viscera. Such protection of the heart has no doubt saved many pneumonic sufferers that would have otherwise died. This means of alleviation, however, has its limitations and when its limit is reached is the time the doctor should intercede and lend intelligent aid.

There are certain definite signs and symptoms which help much in deciding upon the time that aid is needed. The second pulmonic heart sound should be observed carefully. It is due to be accentuated as compared with the second aortic on account of pulmonary tension. When this sound begins to become subdued one may know that the right ventricle is having a greater load than it can carry, is failing and relief is needed. Blood pressure should be taken twice daily. Complications arising in this procedure come from the fact that one may not know what the normal pressure is for the individual being treated. If the normal pressure of the sufferer is normal to the average individual, the pulse rate should be compared with the systemic blood tension and when the rate becomes higher than the tension, this should be considered a danger signal. The respirations should be compared to the diastolic pressure. When the pressure reaches within ten points of the number of respirations per minute, one may know that all is not well. The distressed condition of the patient and cyanosis should also be taken into consideration. To summarize, the cardinal points to observe are: The sound of the pulmonic valve, the relation of systolic tension to the pulse rate, the relation of diastolic tension to the respiration rate, the degree of distress of the patient, and cyanosis. When these danger signals arise, we must think of our best agents of defense. In doing this we certainly can do no better than to emulate nature. She has already bled the patient before this, by opening up the tricuspid valve and pumping the surplus blood into the mesenteric

ic circulation. When this reservoir becomes water-logged we are due to lessen further the heart load by removing some blood. Free bleeding is our best emergency agent. The results our forbears obtained from this procedure in treating pneumonia no doubt imbued them with the idea that bleeding was a panacea. In pursuing this course we take the load off of a failing heart. Our effort should be to attempt to re-establish its strength. Digitalis acts slowly and it has but little efficacy in emergencies. It should be given, however, as soon as the heart begins to show evidence of failing, based upon signs and symptoms previously mentioned. It is better even if these signs and symptoms can be slightly antedated because in this way the digitalis may have time to get in its effect upon the heart by the time the failure starts. My plan is to give caffeine and sodium benzoate at the time of the bleeding in two to three grain doses. The effect of this is almost immediate and it will sustain the heart until the digitalis begins to act. It should not be continued after the heart is digitalized. Three to five doses should be given at intervals of four hours. By this time the heart will have shown the effect of digitalis. One must bear in mind that digitalis is an exceedingly dangerous drug in pneumonia and should be handled with intelligence. The best aid in its administration is observation of the pulse as compared to tension. After something like 16 to 24 hours from the time of the beginning of its administration, the physiological effect is due to begin. If no beneficial results are noted, the heart is either intolerant to the drug, or the drug itself is not potent. Should the heart show an intolerance characterized by a bigeminal or irregular pulse with no strengthening, it should be permanently discontinued. When the heart becomes definitely digitalized, digitalis should be discontinued until the blood pressure gets well below the pulse rate and repeated again in the same way. One can use either potent tinctures or hypodermatic preparations. The tinctures can be given in doses from 15 to 30 drops at intervals of four to six hours. The hypodermatic dose can be given in the form of digifolin every four hours. Six to

ten doses will usually suffice. A second bleeding may at times be indicated, but I rarely resort to this.

In many of the profoundly toxic cases, especially where there is bacteremia the abdomen becomes greatly distended and embarrasses the thoracic viscera by pressure. These forms are almost universally fatal. Pituitrin is the best agent we have at our command in combating this complication. It should be administered in half obstetrical doses every four to six hours. It gives tone to the abdominal viscera and aids in alleviating the distension. While it raises blood pressure, it probably does this by lessening the lumen of the blood vessels thereby putting a greater load upon the heart. For this reason it should be given cautiously.

Veratrum by many has been used as a means of lessening the load of the heart with apparent success. It unquestionably has its value in the treatment of pneumonia if intelligently used. Its effect is that of bleeding. The peripheral vessels are dilated and the heart no doubt is given some relief. If one should think better of this means than of bleeding, one should begin the digitalis at the time of the administration of the veratrum. Theoretically in this way the load is taken from the heart until the digitalis can have time to give it strength. The better plan would be to resort to bleeding and caffeine for immediate relief, and digitalis for remote relief. Strychnine is of unquestionable value and it probably has no place in the treatment of pneumonia. The therapeutic agents occupying a primary position in treating this malady are: Bleeding, digitalis, caffeine and pituitrin. The others all occupy secondary positions. Oxygen may be used in a palliative way, but if there has ever been any permanent benefits derived from its use in my hands I have been unable to see it.

To discuss the complications arising in the way of empyema would lengthen this essay too much.

In closing the essayist desires to state emphatically that the majority of pneumonias need no treatment except to administer to the patient's comfort; that all pneumonias are as a rule over-treated; that it is more dangerous to give potent drugs

indiscreetly than not to give them at all; that if one is in doubt as to the administration of a remedy, it should not be given; that there is no disease which requires so broad a scope of knowledge from the standpoint of pathology and therapy as pneumonia; and that one should study digitalis as he studies no other drug before he attempts to use this remedy.

Discussion on Paper of Dr. E. C. Thrash

DR. R. L. MILLER, Waynesboro, Ga.: On two or three occasions Dr. Thrash and I have discussed this question and we stand close together in our opinions. He is eminently correct in his conclusions. He is also correct in the fact that the treatment is often spectacular and often tragic. I agree with him that the main thing to do is to sustain our patients and keep up proper elimination.

Dr. Thrash failed to mention one thing which I thought he would mention, and that is water, "externally, internally and eternally." I think we do not pay enough attention to the amount of water we give our pneumonia patients.

As to serums and antigens, I at one time was much impressed by the effect of the pneumococcus antigen in pneumonia, and read a paper on this subject before the First District Medical Society. Since that time I have been disappointed.

I think Dr. Thrash is also right in that venesection should be practiced whenever the right heart becomes over-loaded.

He mentioned the caffeine sodium benzoate, which is very valuable, for in addition to its effect upon the heart it increases the flow of urine and thereby the elimination. One drug has fallen into disrepute because we failed to use it wisely enough, and that is Ouabain. It can be used intramuscularly or intravenously and we can get an almost instantaneous digitalization of the heart. That is the active principle of strophanthus. This cannot be used in cases in which you have used digitalis, or at least we are advised not to do so. Dr. Murphey does not agree with this. He says he has seen patients who have been thoroughly digitalized and have then been given Ouabain without any bad effects. It has had no bad effect in his cases. Personally I am a little bit skeptical and would rather use the Ouabain in the cases in which I have not used digitalis. I am still of the opinion that we kill more pneumonia patients than we benefit with digitalis when we give it in excessively large doses, and without paying particular attention to the blood pressure and to the heart.

DR. L. F. LANIER, Rocky Ford, Ga.: I was glad to hear Dr. Thrash's paper. I remember reading a little pamphlet of an address which he delivered down in Southern Georgia some time ago, and last year Dr. Stewart Roberts delivered a nice talk on pneumonia, which Dr. Thrash discussed. Regarding the Lilly antigen, I had a little girl about 16 years of age who was taken sick one day and I was called the following morning. She had a right sided pneumonia, with a temperature of 104° F. I told them she was desperately sick and that they must get a nurse at once. At six o'clock I got my nurse and Lilly's antigen and gave 1 c.c. of this every six hours. The blood pressure was taken regularly, and was about what we usually see in a patient very sick with pneumonia. There was a variation of about 500 in the blood count, ranging from 13,500 to 14,000. She was still desperately ill and I was still using the Lilly antigen, without results. The patient finally died. Last year Dr. Miller spoke well of the antigen and I still felt that it might be of some value. This Spring I tried it a little more and thought I got results. After giving it on the third or fourth day the temperature dropped and I thought this was due to the antigen.

Regarding mercurochrome-220 soluble, I have used it in several cases and like it very much. I have had really excellent results with it. Inasmuch as this drug last year was a little bit new, I did not wish to be a pioneer in using it in pneumonia cases. I saw a report in the medical journal from a man who used a 2 per cent solution of it and the patient developed stomatitis as a result, but recovered. I consider it very valuable in many cases.

DR. LEWIS D. HOPPE, Jr., Atlanta, Ga.: I have enjoyed Dr. Thrash's paper very much. Dr. Thrash occupies a unique position in the medical profession of Atlanta. He not only stands out preeminently as one of our leading physicians, but is also known as "the young man's friend." He always has a kind word of advice and good counsel to give us when we are in trouble. Therefore, when he mentions the treatment of any disease we always harken to his words of wisdom.

About using mercurochrome in children, about six months ago Dr. Freeman and I began using this in the treatment of lobar and bronchial pneumonia. Our work is still incomplete, but we have a series of 148 cases. Of these 74 have been treated with mercurochrome-220 soluble, and 74 used as controls. Of the 74 treated with mercurochrome-220 soluble the average duration of the disease

was six and a half days, while in the controls the average duration was fourteen days. The 74 cases treated with mercurochrome-220 soluble were sick an average of 2.7 days after receiving the first injection. The mortality in these cases was 10.8 against 36.5 in the control group.

DR. ARCH ELKIN, Atlanta, Ga.: A paper on pneumonia naturally grasps any doctor because we have not done anything about pneumonia. Dr. Thrash has read a very interesting and instructive paper. Dr. Thrash, of course, knows a whole lot about pneumonia, probably as much or more than any of us in this room, but the fact remains that the medical profession has not done anything with pneumonia. Fifty years ago we treated it with veratrum viride and about 40 per cent of the patients died. Today we treat patients with mercurochrome-220 soluble and about 40 per cent of them die. Pneumonia is one of the things that has been a barrier to the medical profession. It is, however, refreshing to have workers like Dr. Thrash, because such workers lay aside what were once the methods of treatment and really try to treat pneumonia according to scientific methods. When I was in school eighteen years ago I was taught that when a case was diagnosed as pneumonia the thing to do was to give digitalis. Dr. Thrash is perfectly right, whether it is original or not, in saying that because a patient has pneumonia he does not necessarily have to have digitalis. The greatest thing in pneumonia, as we all know, is to determine what the heart is going to do. If the heart does not fail, and if the belly does not get distended we will probably save the patient. If these things happen the patient will probably die. If we put a load on the heart, like digitalis or strophanthus or anything else you may select, before it is needed then when we need the heart action to sustain that individual we will not get the response we would have had if we had waited until we needed the drug before we gave it. If you make the diagnosis of pneumonia do not turn around and give orders for digitalis or strophanthus or anything else, but wait until the heart asks for it.

As to the serum, the idea which has been discussed, and digitalis and strophanthus in connection with it, I do not think that serum in pneumonia is worth a dam. As to giving these things jointly, I have treated probably 500 cases in my practice with the combination of strophanthus and digitalis. There is no drug that will answer your call so quickly and give you the smile that comes over your face when you see your patient better, as will strophanthus when you want your heart

digitalized. *Strophanthus* will not do harm and will probably help, whether you give *digitalis* or not.

DR. W. T. FREEMAN, Atlanta, Ga.: I wish to thank Dr. Thrash for his excellent paper. It appealed to me in the breadth of its scope. He has summed up very well indeed the useful drugs and has done something to weed out the useless ones. It is just as important to weed out the useless as to stress the useful. When we are dealing with such a serious disease as pneumonia, with such a high mortality, it behooves us to do just as Dr. Thrash has said, "watch our step," and not over-treat the patients.

One word about the use of *mercurochrome-220* soluble, particularly in regard to its reaction. I think people have been more or less afraid of this because some very severe reactions have taken place following its use intravenously and otherwise. We have had some of these reactions in infants and children but recently they have not occurred as frequently as they did at first. We believe we have found the cause of the early reactions. It seems that following the use of the drug there are two forms of reaction. One a general systemic reaction which more or less simulates that following foreign protein—the chill, the sudden rise in temperature and the patient quite ill for a few hours. This, I think, is to be avoided. The other form is characterized by a few loose, red stools. This happens fairly often and in our experience has been harmless. We have decided that *mercurochrome-220* soluble is better borne by infants and children than by adults. Two or three theories may be advanced for this. We believe it may be due to the accumulated action of the mercury. The mortality in our series of cases treated with *mercurochrome* was much lower than in the control series.

DR. E. C. THRASH, Atlanta, Ga., (closing): In reference to Dr. Miller's statement concerning water, that goes without saying. I stated that I left out the giving of calomel

and all the other things that have no value but do no harm. I simply discussed the treatment of pneumonia from the standpoint of what does harm as well as what does good. We have to do a lot of things that will lead to the comfort of the patient. The acetates are good, and local applications are often useful. I have had no experience with *Oubain*.

As to the antigens, I will reiterate what I said in the paper. I think they are of no value in acute fulminate diseases. I believe they do more harm than good, but in chronic diseases I think they are of value.

I have observed the work of Dr. Hoppe and Dr. Freeman and it has been a great inspiration to me. They have done most careful experimental work with *mercurochrome-220* soluble. I think it has been more carefully carried out by them than by anyone else. They have done this in their private offices and their experience causes me to say that this produces better results than anything I know of in children and that it seems to be almost a specific. I want to repeat what I said in reference to giving these drugs to reduce intoxication. If you give them after the heart has undergone degenerative changes you will do harm. If they are given early they do good.

In relation to *veratrum*, it is a southern drug. Text books do not mention it in connection with the treatment of pneumonia, but southern doctors have obtained good results with it and it is my impression that those who are using it scientifically are getting good results.

In reference to Dr. Elkin's statement that serum is not worth a dam, that is based upon the fact that he must not know anything about serum or about biology. I based my statement upon careful study of immunology and biology. I know that No. 1 serum cures Type I pneumonia and that the other types are beneficial. This is based upon the experience of other men throughout the world as well as mine.

MEDICAL STUDY TOUR TO EUROPE

The Travel Study Club of American Physicians, founded at the London International Medical Congress of 1913, is announcing plans for its 1926 Study Tour. Sailing from New York on June 12th, the party will visit clinics and medical institutions in the medical centers of Oslo (Christiania), Stockholm, Copenhagen, (optional to Berlin and Munich), Cologne, Heidelberg, Strasbourg,

Berne, Zurich, Leysin, Geneva, Paris and London, returning on August 8th. Dr. Louis L. Seaman of New York is President, Drs. Fred H. Albee of New York, Edward B. Heckel of Pittsburgh, John P. Lord of Omaha, vice presidents. Physicians in good standing, to the limit of fifty, are invited to participate in this tour, and the secretary, Dr. Richard Kovaes, 223 East 68th Street, New York City, will supply any further information desired.

THE DEXTROSE CONTENT OF THE CEREBROSPINAL FLUID IN CERTAIN NERVOUS AND MENTAL DISEASES*

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The purpose of this study is to report the results of comparative determinations of the amount of dextrose in the blood and cerebrospinal fluid in certain psychoses and neurological diseases, and to consider the clinical significance of the findings.

Although the physical properties, distribution, and protective function of the cerebrospinal fluid were accurately described by Magendie (1), in 1825, most of our present conceptions of this important body fluid have developed since 1891, when Quincke (2) introduced a method of lumbar puncture whereby portions of cerebrospinal fluid might simply and readily be removed from living persons. Even today, however, many important problems concerning the nature of the cerebrospinal fluid are still unsolved. Whether the fluid circulates through a definite pathway, whether it is a true secretion or merely a dialysate from the blood serum, and even so fundamental a point as the place of origin of the cerebrospinal fluid, are questions that cannot be answered absolutely (3). I shall not attempt a comprehensive consideration of these interesting controversial opinions, but shall state, rather, what seems to be the consensus of modern opinion concerning them.

The cerebrospinal fluid is formed chiefly in the lateral, third, and fourth ventricles by the choroid plexuses, which are vascularized protrusions of pia mater covered by specialized cubical cells that resemble those of the ependyma (4). The fluid formed in the lateral ventricles flows through the foramina of Monro into the third ventricle and then into the fourth ventricle by way of the aqueduct of Sylvius. From the fourth ventricle,

it passes by way of the foramina of Magendie and Luschka through the tela choroidea and enters the cisterna magna. It then diffuses both downward into the subarachnoid area surrounding the spinal cord and outward over the surface of the brain. There probably is a more or less continuous interchange of fluid in the various connecting parts of the subarachnoid space, the diffusion being facilitated by such factors as gravity, the effect of respiratory movements and of impulses transmitted to the fluid by pulsations of adjacent blood vessels. The cerebrospinal fluid is continuously formed, but the exact rate of formation is unknown. After fractures of the skull, however, and in the condition of cerebrospinal rhinorrhea, 200 c.c. or more may be lost daily. In health, the total amount present at any one time probably does not exceed 150 c.c. (5). The cerebrospinal fluid is absorbed chiefly into the dural sinuses by means of the arachnoid villi, but also to some extent by lymphatics contained in the sheaths of nerves and blood-vessels (6). The cerebrospinal fluid serves as a protecting cushion to the brain and spinal cord, as a reservoir to regulate the contents of the intracranial and intraspinal cavities, as a vehicle to remove products of tissue metabolism, and possibly as a nutrient pabulum for nerve cells.

That the cerebrospinal fluid, in health, is clear, colorless, of low specific gravity, nearly isotonic with physiological salt solution; that it contains no cells or at most four or five lymphocytes; that it reliably reacts negatively to the Wassermann test, shows no easily-detectable amount of globulin or albumen, and does not produce appreciable changes in colloidal gold solution when treated by Lange's method; are facts that are well known. The abnormal serological findings which accompany syphilis of the nervous system, are likewise well understood. The chemical changes which occur in

*From the Pathological Laboratory, Georgia State Sanitarium.

*Read before the Medical Association of Georgia, May 14, 1925.

*I am indebted to the members of the Medical Staff of the Georgia State Sanitarium for permission to use, in this study, clinical material upon their services, and to Mr. D. C. Leaptrout for valuable technical assistance.

the fluid as the result of disease processes, however, are less well known. The principal general diseases that regularly affect the chemical composition of the cerebrospinal fluid are diabetes mellitus and the nephritides. When dextrose, urea, or chlorides are much increased in amount in the blood, corresponding changes in the quantities of these substances may be readily detected in the cerebrospinal fluid.

We may now analyze the findings obtained in the examination of corresponding blood and cerebrospinal fluid specimens from 206 patients at the Georgia State Sanitarium.* While the primary object of the study was to determine the significance of the dextrose content of the cerebrospinal fluid, it was felt that this objective could be better attained if comparative blood analyses were also made.

Technique.

The method of Folin and Wu (7) was employed in making the sugar determinations. The technique for the examination of the blood was not modified except that, in order to delay glycolysis as uniformly as possible, one small drop—approximately 0.05 c. c. of chemically pure formalin (Baker Analyzed) was added to each specimen of oxalated blood. It was previously determined, however, that a similar quantity of the particular sample of formalin used had no noteworthy effect upon the readings when added to definite amounts of standard dextrose solution (8). In the cerebrospinal fluid examinations, a 5-c.c. portion of each specimen was diluted to 50 c. c. with distilled water, and 2 c. c. of the diluted fluid were treated in the remainder of the examination exactly as 2 c. c. of blood filtrate. The specimens were collected before breakfast and after a fast of about fourteen hours. The blood and cerebrospinal fluid specimens were nearly simultaneously secured, and the examinations were completed immediately afterward.

The patients were all adults, the average age for the entire group being 38.2 years. There were, in the series, 69 colored, and 61 white, men; 40 colored, and 36 white, women. The series comprises a variety of nervous and mental affections, as follows: Dementia praecox, 45; manic-depressive psychosis, 44;

general paralysis of the insane, or other post-syphilitic psychosis, 42; epilepsy, 26; cerebral arteriosclerosis, 14; mental deficiency, 10; encephalitis, 7; meningitis, 5; Huntington's chorea, 5; alcoholic psychosis, 4; paralysis agitans, 2; and multiple sclerosis, 1. Although the same adequate diet is provided for all of the physically well patients at the Sanitarium, there is always the possibility that any psychotic person may, for one reason or another, not actually receive the full ration provided. He may, for instance, fail to eat because of mental depression or excitement, or because of some delusion as to the safety of the food. The fact that the patients studied usually did consume the full diet, was ascertained by inquiring of the nurses as to how completely each patient ate his meals.

Blood and Cerebrospinal Fluid Sugar In Entire Group.

The average blood dextrose finding, for the entire series, is 84.4 milligrams per 100 c. c.; the average cerebrospinal fluid dextrose, 55.7 mg. per 100 c. c.; and the average percentage ratio of the dextrose content of the cerebrospinal fluid to that of the blood, 63.

It would appear from our work and from that of other investigators (9, 10, 11) that the findings are much alike in various clinically dissimilar groups of diseases. Moreover, our series, although it includes no entirely normal person, does include numerous robust epileptic, manic-depressive, and mentally deficient, patients. These facts impel me to the belief that, for the group as a whole, the blood and cerebrospinal fluid findings are approximately normal.

Blood Sugar.

While there is apparently a definite hypoglycemia in certain individual cases in the series, the blood sugar is somewhat increased in other cases, so that the average for the entire group—84.4 mg. per 100 c. c.—approaches normal. In a series of 23 healthy nurses, our laboratory has previously found the average blood dextrose content to be 88.0 mg. per 100 c. c. The normal range of blood sugar is usually stated to be from 90 to 110 mg. per 100 c. c., however. Looney (9) at the Shephard and Enoch Pratt Hospital found an average blood dextrose con-

tent of 89.3 mg. per 100 c. c. in a group of psychotic patients. Weston (10), and Newcomer (11) have likewise reported approximately normal blood dextrose findings in various groups of mental disorders.

Cerebrospinal Fluid Sugar.

There has been considerable divergence of opinion concerning the amount of dextrose that is normally present in the cerebrospinal fluid. Since the various methods by which the sugar content has been determined have not always been equally exact, and since, in many instances, no account has been taken of the time at which the specimens were collected, it may be well to quote only the work of a few recent writers whose technique has been somewhat comparable with our own. Alpers, Campbell, and Prentiss (12) consider the normal range of cerebrospinal fluid sugar to be from 50 to 65 mg. per 100 c. c. Kraus and Pardee (13) give as normal figures, 40 to 69 mg. per 100 c. c. Seham and Nixon (14) find the average normal amount to be 69 mg. per 100 c. c. Coope (15) concludes that a low sugar content is one under 40 mg. per 100 c. c. Thalheimer and Updegraff (16) say that the upper limit of normal, with the Folin-Wu method, is between 60 and 65 mg. per 100 c. c. Goodwin and Shelley (17) believe that there is no level which may be considered normal for different individuals, but consider the sugar content of the cerebrospinal fluid to lie fairly constantly within the limits of from 45 to 65 per cent of the amount present in the blood. Polonovski and Duhot (18) say, with reference to meningitis, that if there is a disproportion between the blood and cerebrospinal fluid dextrose content, its extent will be of diagnostic and prognostic value. We have found the average amount of cerebrospinal fluid sugar to be 55.7 mg. per 100 c. c., and the average ratio of cerebrospinal fluid dextrose to blood dextrose, 66. It would appear from our observations that the upper and lower limits, respectively, of the normal amount of cerebrospinal fluid sugar are about 40 and 60 mg. per 100 c. c. There seems to be some correspondence between the sugar content of the cerebrospinal fluid

TABLE 1—Comparative Blood and Cerebrospinal Fluid Findings in Various Diseases

DIAGNOSIS	Dextrose Content in mg. per 100 cc.				CEREbroSPINAL FLUID			
	BLOOD			No. of Cases				Average Percentage Ratio of Cerebrospinal Fluid to Blood Dextrose
	Average	Maximum	Minimum		Average	Maximum	Minimum	
Manic-depressive psychosis	44	83.0	167	68	54.2	70	41	65.3
Dementia praecox	45	83.8	111	65	55.5	71	40	66.2
Paresis, treated	7	101.3	111	79	50.3	61	41	49.5
Paresis, untreated	22	80.6	108	66	52.2	86	40	64.7
Cerebral syphilis, treated	2	99.0	100	98	71.0	80	62	71.7
Cerebral syphilis, untreated	3	99.0	120	69	62.3	76	55	62.9
Latent syphilis, treated	6	86.0	105	73	54.0	62	50	62.8
Latent syphilis, untreated	2	98.5	100	97	53.5	56	51	54.3
Status epilepticus	6	88.0	105	74	61.3	69	54	68.5
Epilepsy, not including Status epilepticus cases	20	78.0	111	68	55.1	65	44	70.6
Mental deficiency	10	77.8	90	68	59.5	62	53	76.6
Huntington's chorea	5	85.8	105	63	62.8	78	56	73.2
Encephalitis	7	75.3	91	66	56.7	62	53	75.3
Paralysis agitans	2	89.5	105	74	52.5	55	50	58.6
Multiple sclerosis	1	67.0	67	67	50.0	50	50	74.6
Cerebral arterio-sclerosis	14	91.9	118	67	61.8	84	45	67.2
Alcoholic psychosis	4	94.2	105	85	59.7	64	53	63.4
Aseptic meningitis	3	94.3	97	91	49.0	52	47	52.0
Influenzal meningitis	1	88.0	88	88	35.0	35	35	39.8
Tuberculous meningitis	1	83.0	83	83	30.0	30	30	36.1
Meningism	1	105.0	105	105	88.0	88	88	83.8
Entire Group	206	84.4	167	65	55.7	88	30	66.0

and that of the blood, although the proportionate relationship between the two is not entirely constant.

Let us now consider the findings in individual diseases, which we may arbitrarily divide into two groups: psychoses, and neurological diseases.

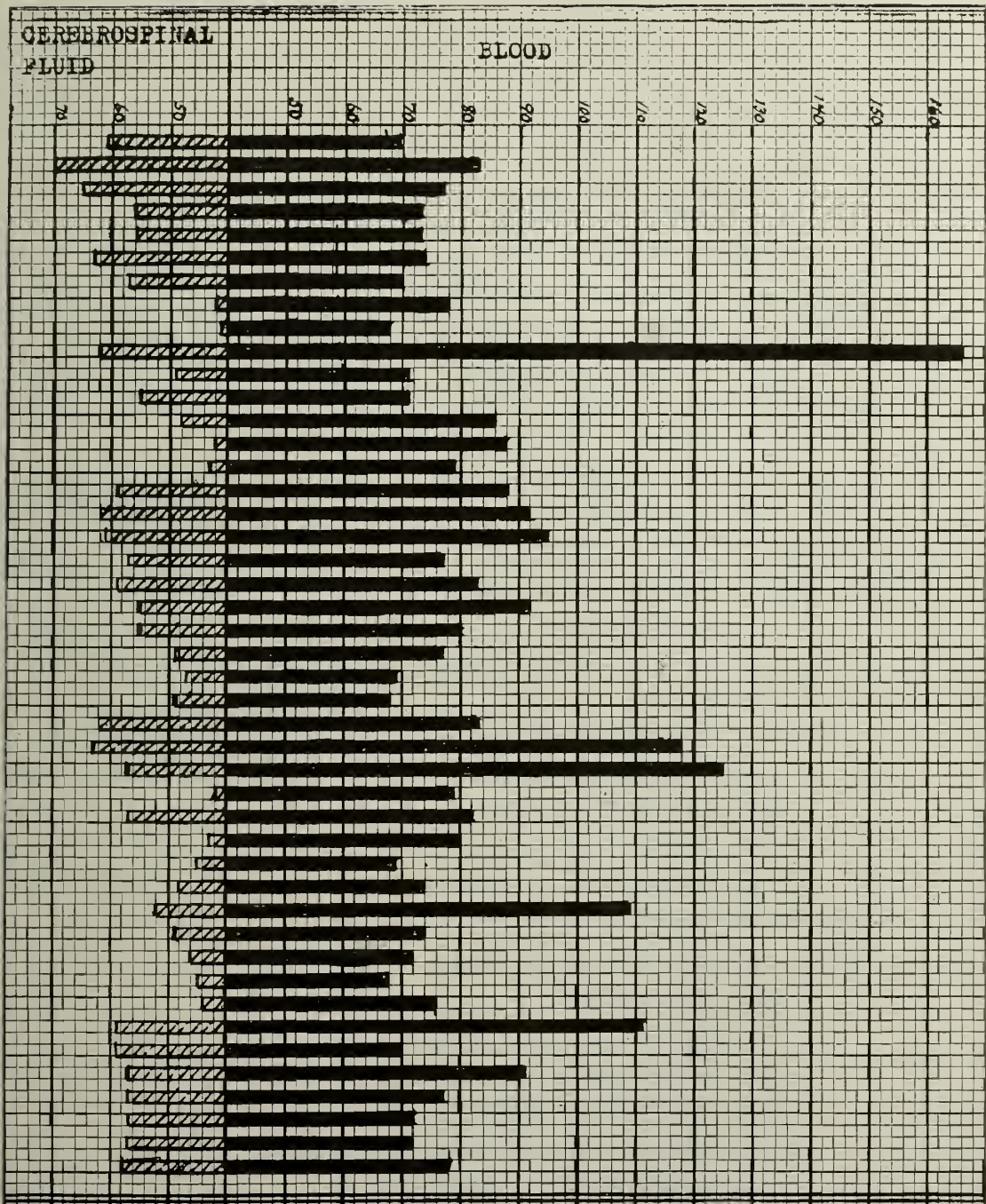


CHART I—Manic-depressive Psychosis

Illustrating Table No. 11

The solid columns represent the blood findings in individual cases, and the shaded columns represent the corresponding cerebrospinal fluid findings. The numbers denote mgs. per 100 cc.

Psychoses.

Ten cases of mental deficiency were studied. These are considered with the psychotic

group, chiefly because the patients—all imbeciles of varying degrees of mentality—were free from any recognized neurological disorder. And, too, mentally deficient persons frequently show outbursts of temper or other episodes that resemble those seen in some of the psychoses. The sugar findings in this group are not remarkable. The average amount of blood dextrose is 77.8 mg. per 100 c. c.; the average cerebrospinal fluid

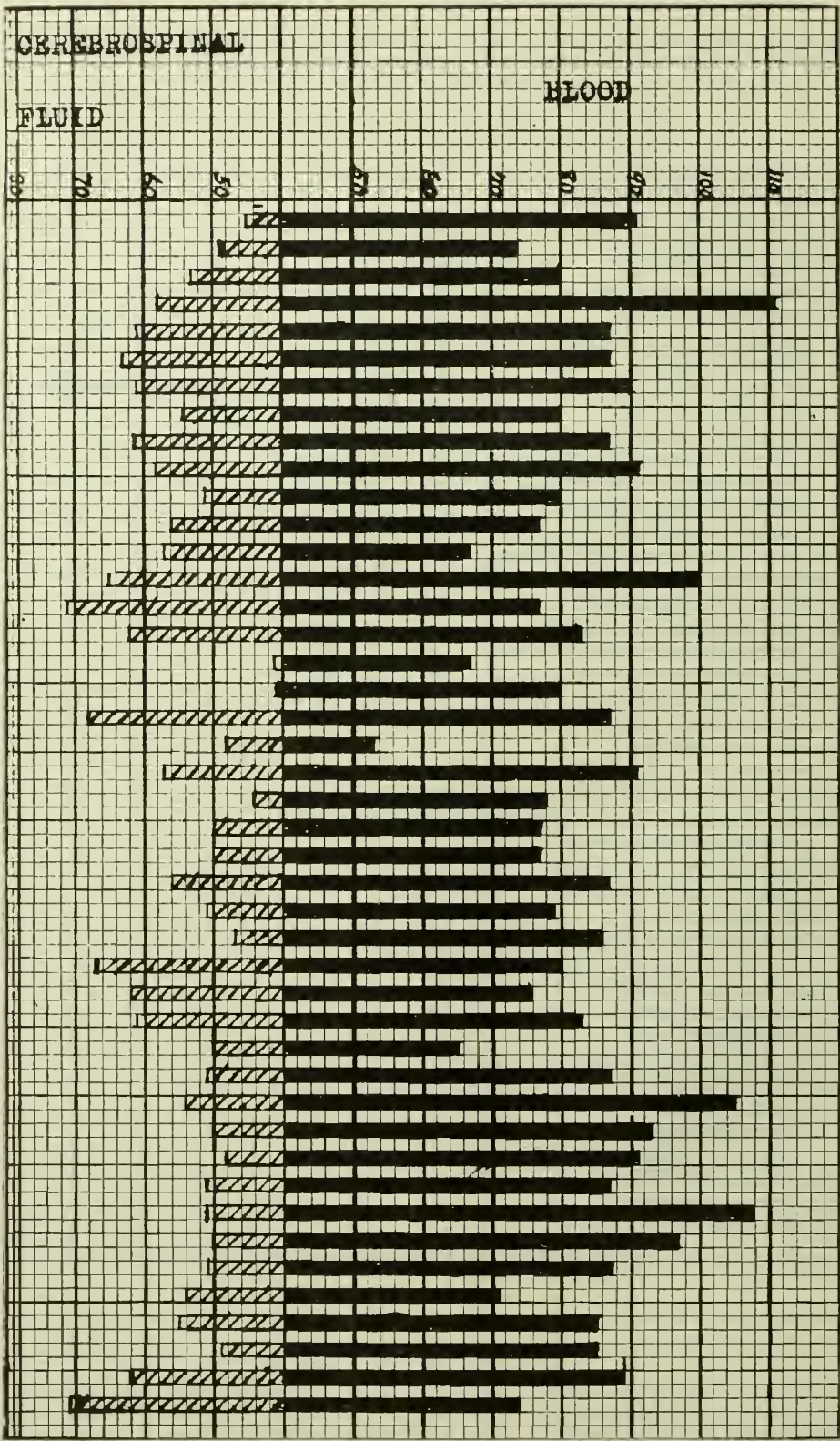


CHART II—Dementia Praecox
Illustrating Table No. III

The solid columns represent the blood findings in individual cases, and the shaded columns represent the corresponding cerebrospinal fluid findings. The numbers denote mgs. per 100 cc.

dextrose, 59.5 mg. per 100 c. c.; and the average percentage of ratio of cerebrospinal fluid dextrose to blood dextrose, 76.6.

In a paper read before the Boston Society for Psychiatry and Neurology, in 1923, Alpers (12) stated that he had obtained an average of 80.1 mg. per 100 c. c. of dextrose in twenty-one cases of dementia praecox, whereas he found in manic-depressive psychosis a more normal amount—66.9 mg. per 100 c. c. It seemed that, if the work of Alpers could be confirmed and it could be established that such significant findings were characteristic of manic-depressive psychosis and of dementia praecox, we should have a valuable criterion for the differentiation of borderline cases of these diseases. Our findings, however, do not agree with those of Alpers. The average cerebrospinal fluid dextrose content in 45 cases of dementia

praecox was 55 mg. per 100 c. c.; that for a group of 45 manic-depressive cases, 53 mg. per 100 c. c. Reference to Table II will show that there is no essential difference between the findings in the simple, catatonic, hebe-

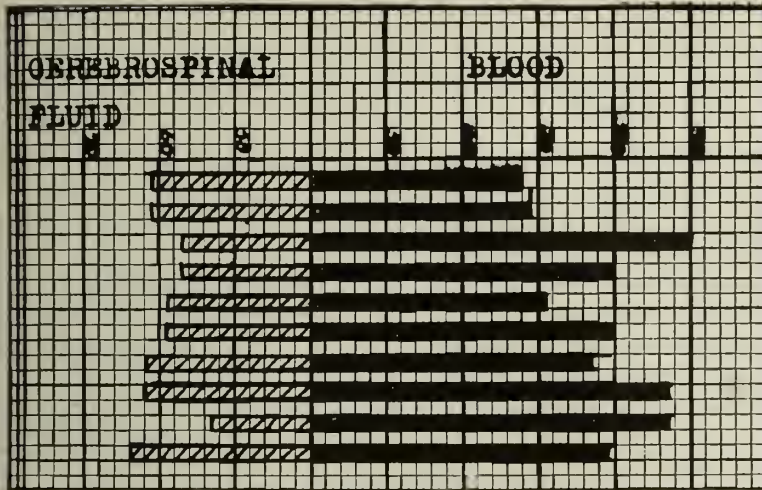


CHART III—

Mental Deficiency

Illustrating Table No. VI

The solid columns represent the blood findings in individual cases, and the shaded columns represent the corresponding cerebrospinal fluid findings. The numbers denote mgs. per 100 cc.

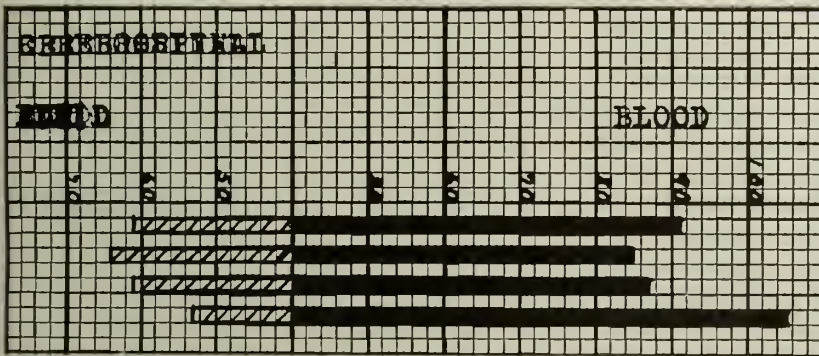


CHART IV—

Alcoholic Psychosis

Illustrating Table No. XII

The solid columns represent the blood findings in individual cases, and the shaded columns represent the corresponding cerebrospinal fluid findings. The numbers denote mgs. per 100 cc.

phrenic, and paranoid, types of dementia praecox. In those manic-depressive patients noted as being excited at the time the specimens were collected, the average dextrose content of the cerebrospinal fluid is 51.5 mg. per 100 c. c.; while in those who were quiet, it is 54.6 mg. per 100 c. c.; and in those who were depressed, 56 mg. per 100 c. c. One of my colleagues (Y. H. Y.) who recently investigated the question of the dextrose content of the blood in manic-depressive psychosis, was unable to observe any regular correspondence between the emotional state of his patients and the dextrose percentages reported by the Laboratory.

In four cases of alcoholic psychosis, the average blood dextrose finding is 94.2 mg. per 100 c. c.; the average cerebrospinal fluid dextrose, 59.7 mg. per 100 c. c.; and the average percentage ratio of cerebrospinal fluid dextrose to blood dextrose, 63.4. These patients had been in the Institution, and consequently free from alcoholic indulgence, for several months, and, according to their

histories, had all shown marked mental as well as physical improvement. Two of them, at the time of their admission to the Hospital, showed the memory defects and fabrications characteristic of the Korsakoff syndrome.

Neurological Diseases

Although so-called idiopathic epilepsy is not characterized by any constant gross or microscopical change in the nervous system, the convulsive paroxysms seem to develop in consequence of some action upon the cerebral cortex. Therefore, notwithstanding the fact that psychoses were present in some

Six of the patients were in *status epilepticus* when the specimens were collected. The average findings for this series are: blood dextrose, 88 mg. per 100 c. c.; cerebrospinal fluid dextrose, 61.3 mg. per 100 c. c.; and the average percentage ratio of cerebrospinal fluid dextrose to blood dextrose, 68.5. Since the tables upon which this paper is based were prepared, we have examined the blood

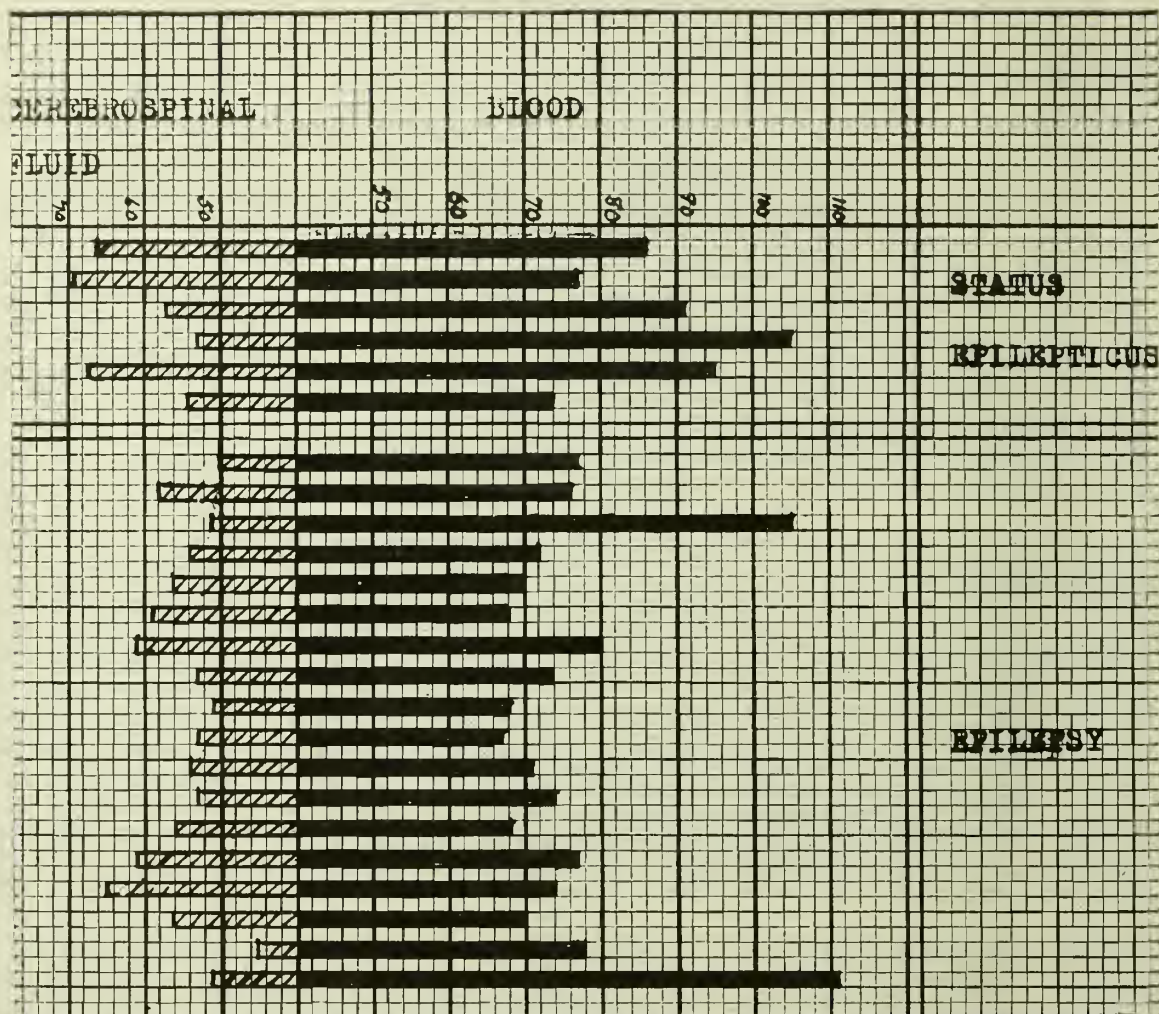


CHART V—Epilepsy
Illustrating Table No. V

The solid columns represent the blood findings in individual cases, and the shaded columns represent the corresponding cerebrospinal fluid findings. The numbers denote mgs. per 100 cc.

and cerebrospinal fluid of a patient in status, in whom the findings were: blood dextrose, 125 mg. per 100 c. c.; cerebrospinal fluid dextrose, 95 mg. per 100 c. c. These are larger amounts than the maximum quantities found in any of the cases here reported. Our findings, in the condition of *status epilepticus* at least, cannot, therefore, be considered conclusive. Cases of *status epilepticus* have been reported in which the amount of cerebrospinal fluid sugar exceeded that of the blood (19). The mechanism by which the changes in the quantity of dextrose in the cerebrospinal fluid are brought about, is unknown. This statement, it may be added, is general in its application and does not refer

to status epilepticus alone. May I digress at this point to say that it seems almost idle to speculate upon the mode of regulation of the cerebrospinal fluid sugar until we acquire more definite knowledge of fundamental problems concerning the source of the fluid and concerning sugar metabolism in general. In the case just cited, the patient had been observed in 130 distinct convulsions between 6 A. M. and 10 A. M., at which time the blood and cerebrospinal fluid specimens were collected. One might expect the sugar content, of the blood at least, to be depleted rather than increased in the presence of such great muscular activity.

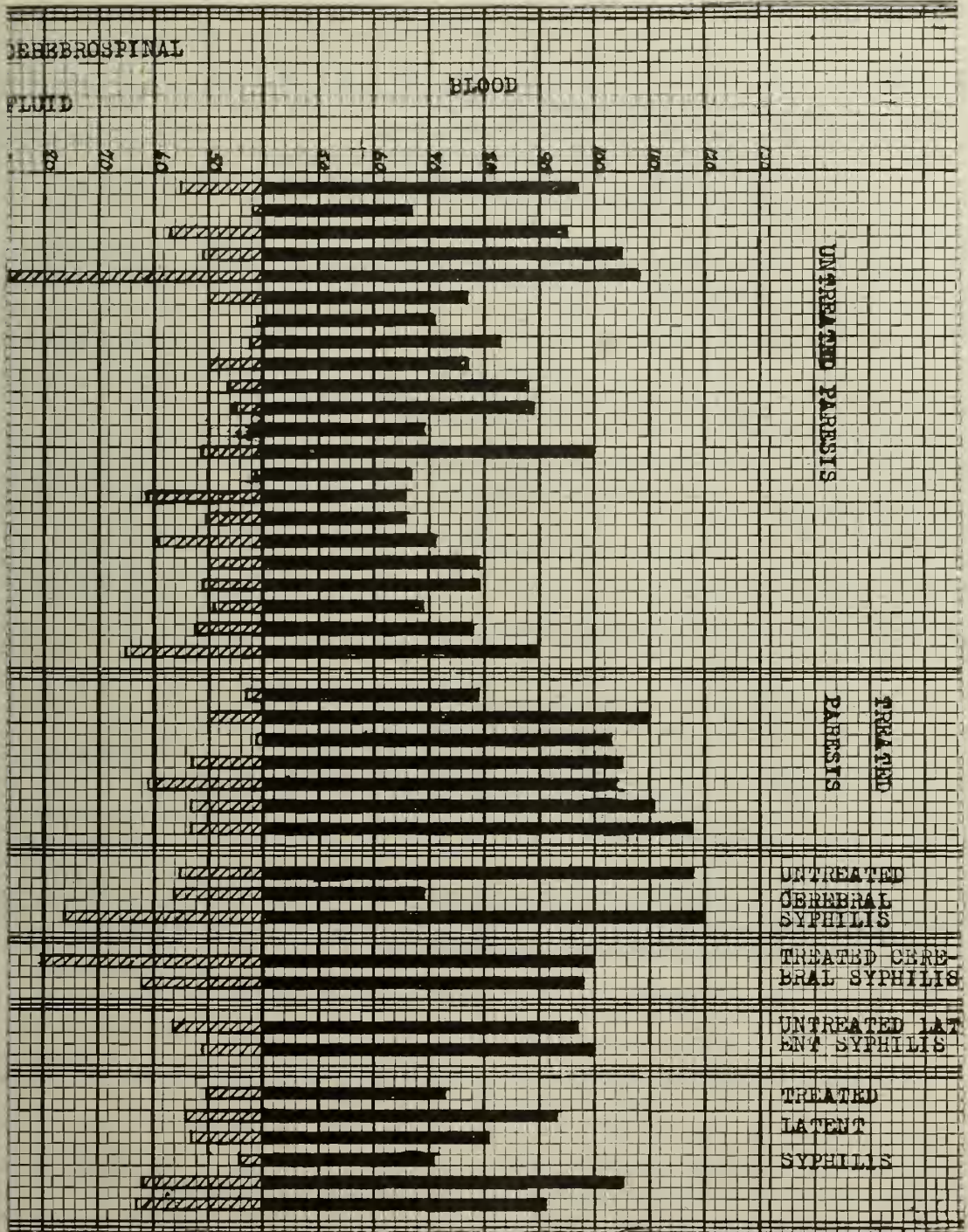


CHART VI—Treated and Untreated Syphilis
Illustrating Table No. IV

The solid columns represent the blood findings in individual cases, and the shaded columns represent the corresponding cerebrospinal fluid findings. The numbers denote mgs. per 100 cc.

of our cases, we shall here consider epilepsyas belonging to the group of neurological disorders.

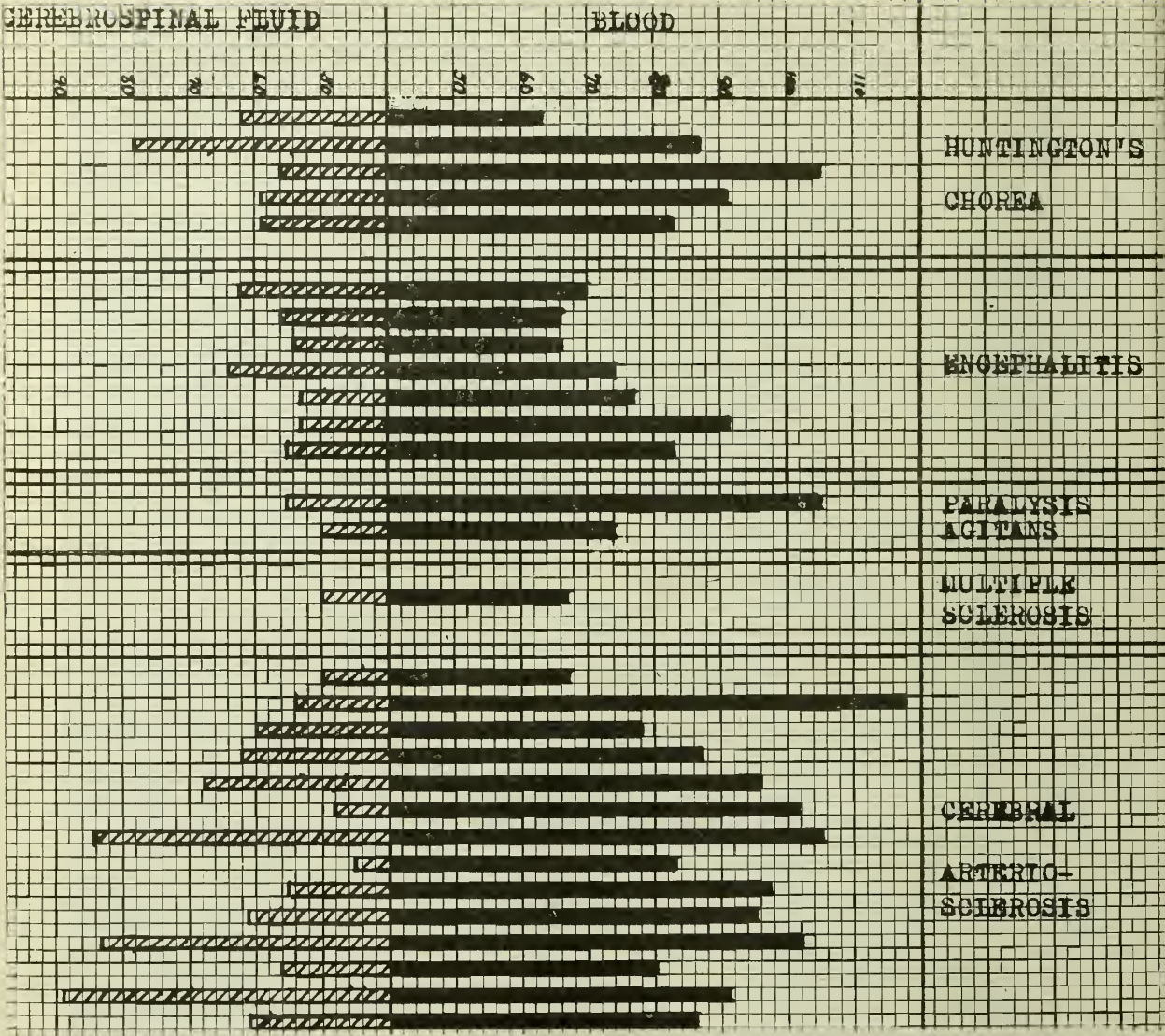


CHART VII—Non-syphilitic Organic Nervous Diseases

Illustrating Tables Nos. VII, VIII, IX, X, and XI

The solid columns represent the blood findings in individual cases, and the shaded columns represent the corresponding cerebrospinal fluid findings. The numbers denote mgs. per 100 cc.

Exclusive of the *status epilepticus* cases, blood and cerebrospinal fluid specimens from 20 other epileptic patients were examined. In these, the average blood dextrose finding is 78 mg. per 100 c. c.; the average cerebrospinal fluid dextrose, 55.1 mg. per 100 c. c.; and the average percentage ratio of cerebrospinal fluid dextrose to blood dextrose, 70.6.

A group of 42 cases of syphilis was studied with reference to the effect of anti-syphilitic treatment upon the dextrose findings. The group included: 22 untreated, and 7 treat-

ed, cases of paresis; 3 untreated, and 2 treated, cases of cerebrospinal syphilis; and 2 untreated, and 6 treated, cases of latent syphilis. The term "latent" is used to designate those cases in which syphilis occurred as a complication of some of the non-syphilitic psychoses, and in which the physical signs, mental symptoms, and serological changes characteristic of paresis or cerebral syphilis, were absent. In the cases marked "treated", the patients had received intensive treatment with either tryparsamide or

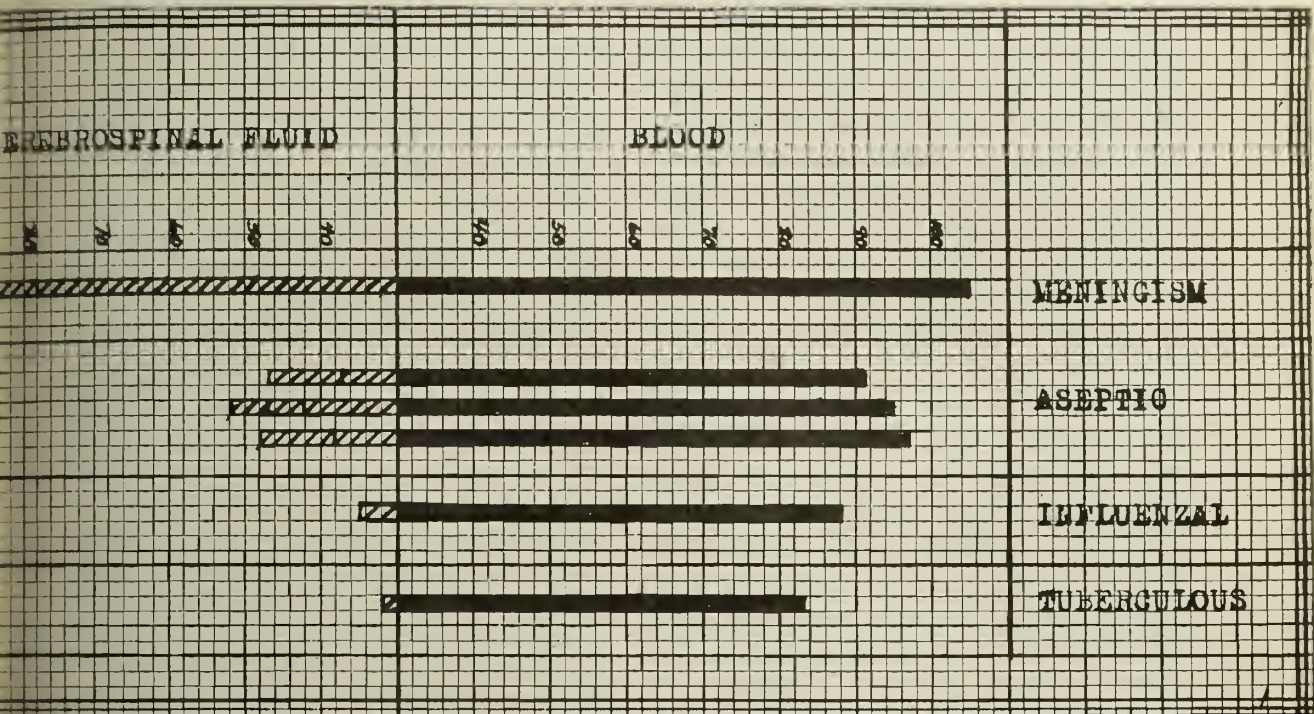


CHART VIII—Meningitis

Illustrating Table No. XIII

The solid columns represent the blood findings in individual cases, and the shaded columns represent the corresponding cerebrospinal fluid findings. The numbers denote mgs. per 100 cc.

arsphenamine in conjunction with iodides and mercury over a period of ten weeks. The blood and cerebrospinal fluid specimens were collected at least two weeks following the completion of the treatment. The serological findings had become modified in all of the treated cases. The following average amounts of dextrose, in mg. per 100 c. c. of cerebrospinal fluid, were obtained: untreated paresis, 52.2; treated paresis, 50.3; untreated cerebral syphilis, 62.3; treated cerebral syphilis, 71; untreated latent syphilis, 53.5; treated latent syphilis, 54. The corresponding average blood findings are: untreated paresis, 80.6; treated paresis, 101.3; untreated cerebral syphilis, 99; treated cerebral syphilis, 99; untreated latent syphilis, 98; treated latent syphilis, 86. Weston (20) obtained an average of 71.8 mg. of cerebrospinal fluid dextrose per 100 c. c. in untreated paresis and of 72.2 mg. in treated cases. Seham and Nixon (14) found the amount to

be approximately normal in cerebral syphilis. Goodwin and Shelley (17), on the other hand, concur with Kelly in the opinion that a low sugar content is found in untreated syphilis of the nervous system, while the amount becomes normal under treatment. The last-mentioned writer found the average amount to be as low as 21 mg. per 100 c. c. in untreated neurosyphilis, and attributed the fact to the utilization of the sugar of the cerebrospinal fluid by the *Treponema pallidum*. It seems unlikely that a sugar value as low as 21 mg. per 100 c. c. of cerebrospinal fluid will be found in any condition other than purulent meningitis. One suspects that some technical factor as, for instance, the length of time that elapsed between the collection and examination of the specimens, may have influenced Kelley's findings. Noguchi (22) says that, for several years he has used dextrose-containing media in the cultivation of the *Treponema pallidum*, and that he has never observed any fermentation of the sugar by the organism.

Epidemic encephalitis is accompanied by an increase in the amount of cerebrospinal fluid sugar, according to most writers upon the subject. Foster and Cockrell (23) found the amount to be above 60 mg. per 100 c. c. in 91 per cent of cases, and conclude that hyperglycorrhachia, although not pathognomonic of encephalitis, is the most constantly positive laboratory finding. Kraus and Pardee (13) considered a high sugar content to be the one finding of any positive value in a large percentage of cerebrospinal fluid specimens from encephalitis patients. The cases of the above-mentioned authors, however, are those of acute encephalitis; ours, chronic post-encephalitis sequelae. The most frequent sequel of encephalitis is the parkinsonian syndrome, so named because of its resemblance to paralysis agitans, or Parkinson's disease. Hunt and Cornwall (24) have summarized its most salient features: youth, rigidity, slowness, mummy-like appearance, increased reflexes, and choreiform movements. Our findings in 7 post-encephalitis cases are: average blood dextrose, 75.3 mg. per 100 c. c.; average cerebrospinal fluid dextrose, 56.7 mg. per 100 c. c. Pucca (25) noted an increase in the amount of cerebrospinal fluid dextrose in 12 cases of post-encephalitic parkinsonism. This, he concludes, together with an increase in proteins and lymphocytes, serves to differentiate the condition from paralysis agitans. We have usually found the cell count to be less than 10 per c. mm. in both conditions, although we have frequently noted an increase in the amount of globulin in encephalitic cases.

In 2 cases of paralysis agitans the average dextrose findings are: blood, 89.5 mg. per 100 c. c.; cerebrospinal fluid, 52.5 mg. per 100 c. c.

The findings in one case of multiple sclerosis are: blood dextrose, 67 mg. per 100 c. c.; cerebrospinal fluid dextrose, 50 mg. per 100 c. c. That the correctness of a diagnosis of multiple sclerosis may usually be questioned, is evident from the fact that one recent writer enumerates 17 separate conditions from which it is necessary to differentiate multiple sclerosis (26). The typical Charcot triad—nystagmus, scanning

speech, and intention tremor—is absent in perhaps 50 per cent of cases, at least.

The average cerebrospinal fluid dextrose content in 5 cases of Huntington's chorea is 62.8 mg. per 100 c. c.; the average blood dextrose content, 85.8 mg. per 100 c. c.

In cerebral arteriosclerosis, the average amount of cerebrospinal fluid dextrose found is 61.8 mg. per 100 c. c.; the average blood dextrose, 91.9 mg. per 100 c. c.

It will thus be seen that in Huntington's chorea and cerebral arteriosclerosis the cerebrospinal fluid sugar findings are relatively high as compared with those in other groups of diseases in our series. In these diseases and in encephalitis, there occur conspicuous alterations in the walls of the cerebral blood-vessels in various situations, and it is tempting to associate in some way the increased quantity of cerebrospinal fluid sugar with the vascular lesions. It has been suggested that the hyperglycorrhachia depends upon an increased permeability of the blood vessels of the choroid plexus for dextrose. Taft (27), however, has observed marked involvement of the choroid plexus in paresis, in which disease we have found no noteworthy increase in the amount of cerebrospinal fluid sugar, and Morowoka (28) has reported histological changes in the choroid plexus in a variety of diseases.

In acute infections of the meninges by various bacteria, the demonstration of the causative micro-organism by means of cultural reactions, animal inoculation, or other bacteriological method, remains the most conclusive finding. There is no other formula of cerebrospinal fluid findings that is pathognomonic of any one of these conditions. In all, the cell count may vary in individual cases and also with the stage of the disease. The amount of increase in pressure, turbidity, and globulin content, are likewise inconstant. In general, there is a diminution in the amount of dextrose in the cerebrospinal fluid in all cases of acute inflammation of the meninges. Dextrose is frequently entirely absent from the cerebrospinal fluid in acute suppurative forms of meningitis produced by the pyogenic cocci, while in tuberculous and influenzal meningitis, the amount is usually less markedly decreased. Our study includes one case,

clinically diagnosed as tuberculous meningitis. The patient, a colored woman with advanced pulmonary tuberculosis, rapidly developed signs of acute meningitis. Although the cerebrospinal fluid was turbid from the beginning, containing numerous lymphocytes, and showed a fibrin clot upon standing, no tubercle bacilli were demonstrated. The dextrose content was 35 mg. per 100 c. c. The patient died. A necropsy was not done. In another case that was probably one of influenzal meningitis, clinical signs resembling those of acute cerebrospinal meningitis had developed in a colored woman who was recovering from an attack of influenza. The cerebrospinal fluid was turbid, and contained an abundance of leucocytes, both polymorphonuclear and lymphocytes. No bacteria were seen in films stained by Gram and Ziehl-Neelsen methods. Cultures were sterile. Unfortunately, animal inoculation was not made. The cerebrospinal fluid dextrose content was 30 mg. per 100 c. c., a finding consistent with a diagnosis of either influenzal or tuberculous meningitis. The patient recovered. This fact would seem to militate against a diagnosis of tuberculous meningitis, although recovery, or at least long remissions, are not unknown. Harbitz (29) says that while about 60 per cent of cases of tuberculous meningitis occur in the first two years of life and quite regularly result in death, cases with recovery have occurred in older children and in adults. Three cases of aseptic meningitis were studied with a view to determining to what extent the lessened sugar content in meningitis might depend upon enzymes liberated from leucocytes in the exudate. The patients were those in whom one of my colleagues (U. S. B.) had, for therapeutic purpose (30), induced an aseptic meningitis by the injection into the spinal subarachnoid space of 5 c. c. of sterile normal horse serum. The average amount of cerebrospinal fluid sugar before the induction of meningitis was 49 mg. per 100 c. c.; afterward, 50.3 mg. per 100 c. c. The average cell count, however, was only 50 per c. mm. In a case of meningism accompanying incipient lobar pneumonia, the cerebrospinal fluid dextrose con-

tent was 88 mg. per 100 c. c. Incidentally, the symptoms were greatly ameliorated by the removal of a few c. c. of cerebrospinal fluid by lumbar puncture. Kinnear (31) believes that the globulin furnishes the most reliable means of differentiating meningism from other lesions of the meninges with which it might be confused. He says that a definite cloud with the Noguchi test is sufficient to exclude cases of meningism. There is some objection to the term "meningism", which is used to designate the symptoms of meningeal irritation, probably toxic in origin, which frequently complicate pneumonia and other infections. The condition may differ only quantitatively from more fully developed forms of meningitis. Warrington (32) believes that the invasion of the meninges by bacteria is usually preceded by toxic damage to the structure with consequent serous meningitis.

Summary and Conclusions

Our investigation of the comparative blood and cerebrospinal fluid dextrose findings in 206 cases, representing a variety of nervous and mental diseases, seems to warrant the following conclusions:

1. The dextrose content of the cerebrospinal fluid is essentially the same in psychotic and non-psychotic persons.

2. The amount of cerebrospinal fluid sugar varies normally from 40 to 60 mg. per 100 c. c., the average being about 55 mg. per 100 c. c. A sugar value below 40 mg. per 100 c. c. is indicative of bacterial infection of the meninges.

3. There is some correspondence between the sugar content of the cerebrospinal fluid and that of the blood. While the proportionate relationship between the two is not entirely constant, a comparative blood analysis is helpful in determining the significance of the cerebrospinal fluid findings in any particular case.

4. In comparison with other diseases included in our study, relatively high sugar values were obtained in Huntington's chorea, cerebral syphilis, cerebral arteriosclerosis, and the status epilepticus groups. High sugar values are occasionally found in individual cases in some of the other groups.

5. An explanation of the mechanism by which changes are brought about in the cerebrospinal fluid must await further knowledge concerning the source of the fluid in health.

TABLE II—Manic-depressive Psychosis

Clinical No.	Race and Sex	Age	Blood Dextrose in mg. per 100 cc.	Cerebrospinal Fluid Dextrose in mg. per 100 cc.	Percentage Ratio of Cerebrospinal Fluid to Blood	*Emotional Status
19048	WM	57	69	61	88.4	Q
18702	CF	54	83	70	84.3	Q
21063	CF	55	77	65	84.4	Q
21027	CF	48	73	56	76.7	D
20988	WF	48	74	63	85.1	D
20653	WF	46	70	57	81.3	Q
21016	CM	45	78	42	53.8	Q
20975	WM	25	68	41	60.2	E
21029	CF	55	166	62	37.3	Q
21043	CM	30	71	49	69.0	D
19630	CM	61	71	55	77.4	Q
20516	CM	31	86	48	55.8	Q
20866	CF	31	88	42	47.7	E
20597	CF	48	79	43	54.4	E
20883	WM	51	88	59	67.0	Q
4451	WF	59	91	61	67.0	Q
12959	WF	39	95	61	65.2	E
19487	WF	52	77	57	74.0	Q
12935	WF	46	83	59	71.1	Q
20482	WF	46	91	55	60.4	Q
20838	CF	18	80	55	68.7	Q
21102	WF	30	77	49	63.6	Q
21042	CM	41	69	47	68.1	Q
20879	CM	47	68	49	72.0	Q
13608	CM	43	83	62	74.7	E
14978	CM	41	118	63	53.3	E
18234	CM	25	125	57	45.6	E
14975	CM	34	79	42	53.1	E
14981	CM	30	82	57	57.3	E
17875	CM	36	80	43	53.7	E
14441	CM	24	69	45	65.2	E
20364	CM	23	74	48	64.8	E
18696	CM	25	109	52	47.7	Q
19630	CM	61	74	49	66.2	Q
16718	CM	64	72	46	63.8	Q
20877	CM	29	68	45	66.1	Q
19126	CM	47	76	44	57.9	Q
20283	CM	58	111	59	53.1	Q
10758	CM	31	70	59	84.2	E
18836	CM	55	91	57	62.5	Q
20623	CM	27	77	58	75.2	E
20876	CM	41	72	57	79.1	Q
16434	CM	51	72	57	79.1	Q
16715	CM	50	78	58	74.3	Q

*Under "Emotional Status", the letters Q, E, and D, respectively, denote that the patient was either quiet, excited, or depressed, at the time of collecting the specimens.

TABLE III—Dementia Praecox

Clinical No.	Race and Sex	Age	Blood Dextrose in mg. per 100 cc.	Cerebrospinal Fluid Dextrose in mg. per 100 cc.	Percentage Ratio of Cerebrospinal Fluid to Blood	*Type
20747	CM	26	91	45	49.4	P
20714	CM	35	74	49	66.2	P
20784	CM	39	80	53	66.2	
12429	CM	48	111	58	52.2	C
19774	WM	51	87	61	70.1	H
4904	WM	44	87	63	72.4	
5294	WM	49	90	61	66.6	
4975	WM	51	80	54	67.5	
18526	WM	37	87	61	70.1	P
2520	WM	45	91	58	63.9	H
17019	WM	31	80	51	63.7	
11720	WM	34	77	56	72.7	
4896	WM	55	67	57	85.0	P
20926	CF	56	100	65	65.0	
20919	CF	33	77	71	92.2	
20931	CF	44	83	62	74.7	
21003	CF	25	67	41	61.2	P
21023	CF	25	80	40	50.0	
20894	WF	30	87	68	77.2	
19469	CF	35	53	48	90.5	
21033	CF	38	91	57	52.7	
21030	CF	19	78	44	56.3	
20992	CF	31	77	50	64.9	
20925	CF	28	77	50	64.9	
20917	CF	51	87	56	64.3	
20924	CF	23	79	51	64.5	
20841	CF	34	86	47	54.6	
21018	CM	25	80	67	83.7	
20787	CM	38	76	62	81.5	
21055	CM	39	83	61	73.4	
18547	CF	62	65	50	76.9	
20347	CF	27	87	51	58.6	
19117	CF	29	105	54	51.4	
19981	CF	40	93	50	53.7	H
16194	CF	28	91	48	52.7	C
21012	WF	27	87	51	58.6	
20815	WF	26	108	51	47.2	P
20952	WF	32	97	50	51.5	
2493	CM	62	87	51	58.6	
21076	CF	22	71	54	76.0	
21078	CF	42	87	55	63.2	
20348	CF	48	85	49	57.6	
20594	WM	27	83	62	74.6	
21101	WF	27	89	62	69.6	
21082	WF	31	74	71	95.9	

*The letters P, C, and H, denote respectively paranoid, catatonic, and hebephrenic types. The cases not specially designated belong to the simple type.

TABLE IV—Comparative Findings in Treated and
and Untreated Syphilis

Clinical No.	Race and Sex	Age	Blood Dextrose in mg. per 100 cc.	Cerebrospinal Fluid Dextrose in mg. per 100 cc.	Percentage Ratio of Cerebrospinal Fluid to Blood
Treated Paresis					
20947	WF	44	79	43	54.4
19481	CM	36	110	50	45.4
19740	WM	43	103	41	39.8
18979	WM	40	105	53	50.4
19735	WM	46	104	61	58.6
20823	WM	35	111	53	47.7
20821	WM	37	118	53	44.9
Untreated Paresis					
21115	WF	38	97	55	56.6
21015	CM	43	67	40	59.7
20972	CM	65	95	57	60.0
20937	CM	65	105	51	54.5
20713	CM	35	108	86	79.6
21093	WM	38	77	50	64.9
21045	CM	39	71	40	56.3
21094	CM	28	83	42	50.6
21112	CM	58	77	50	64.9
20934	CM	38	86	46	53.4
16768	WF	42	89	45	50.5
20814	WM	56	69	40	57.9
21041	WM	39	100	51	51.0
Clinical No.	Race and Sex	Age	Blood Dextrose in mg. per 100 cc.	Cerebrospinal Fluid Dextrose in mg. per 100 cc.	Percentage Ratio of Cerebrospinal Fluid to Blood
21004	CF	58	67	41	61.2
21046	CF	38	66	61	92.4
20101	CF	31	66	50	75.7
20890	WM	39	71	59	83.1
20742	WM	45	79	70	88.6
21019	CM	51	79	51	64.5
21054	CM	42	69	49	71.0
20965	CM	40	78	52	66.6
20932	CM	55	90	65	72.2
Treated Cerebral Syphilis					
10871	CM	52	100	80	80.0
20882	CM	60	98	62	63.2
Untreated Cerebral Syphilis					
20979	WM	52	108	55	50.9
21052	CM	38	69	56	81.1
20788	CM	16	120	76	63.3
Treated Latent Syphilis					
20027	WM	29	73	50	69.7
20010	WM	30	95	54	56.8
20941	CM	34	81	53	65.4
20942	CM	20	71	44	61.9

Clinical No.	Race and Sex	Age	Blood Dextrose in mg. per 100 cc.	Cerebrospinal Fluid Dextrose in mg. per 100 cc. Percentage Ratio	of Cerebrospinal Fluid to Blood
20323	WM	32	105	62	59.0
20803	WM	19	91	61	67.0
Untreated Latent Syphilis					
21091	CM	40	97	56	57.7
21041	CM	34	100	51	51.0

TABLE V—Epilepsy

Clinical No.	Race and Sex	Age	Blood Dextrose in mg. per 100 cc.	Cerebrospinal Fluid Dextrose in mg. per 100 cc.	Percentage Ratio of Cerebrospinal Fluid to Blood
21103	WF	25	101	44	43.5
20468	WM	16	91	62	68.1
15402	CM	31	77	50	64.9
9469	CM	26	76	58	76.3
19026	CM	19	105	51	50.5
15785	CM	37	72	54	75.0
20162	CM	18	70	56	80.0
18848	WM	21	68	59	88.3
19074	WM	40	80	61	76.2
18678	WM	53	74	53	71.6
20639	WM	27	68	51	75.0
3823	WM	40	67	53	79.1
19295	WM	62	71	54	76.0
302	WM	29	74	53	71.6
18123	WM	39	68	56	82.3
13787	WM	24	77	61	79.2
20999	WF	17	74	65	87.8
2781	WM	27	70	56	80.0
20947	CF	25	78	45	57.6
19348	CF	24	111	51	45.9
Status Epilepticus					
2781	WM	27	86	66	76.7
2764	WF	33	77	69	89.6
19476	WM	26	91	57	62.6
21037	WM	16	105	55	52.3
12210	WF	40	95	67	70.5
19441	WF	13	74	54	72.9

TABLE VI—Mental Deficiency

Clinical No.	Race and Sex	Age	Blood Dextrose in mg. per 100 cc.	Cerebrospinal Fluid Dextrose in mg. per 100 cc.	Percentage Ratio of Cerebrospinal Fluid to Blood
21121	CF	12	68	61	89.7
20959	WF	26	69	61	88.4
19745	CM	41	90	57	63.3
18063	WF	33	80	57	71.2
20571	WM	33	71	59	83.0
13074	WM	35	80	59	73.7
9939	WM	49	77	62	80.5
20319	WM	21	87	62	71.2
4733	WM	34	77	53	68.8
14867	WM	27	79	64	81.0

TABLE VII—Huntington's Chorea

Clinical No.	Race and Sex	Age	Blood Dextrose in mg. per 100 cc.	Cerebrospinal Fluid Dextrose in mg. per 100 cc.	Percentage Ratio of Cerebrospinal Fluid to Blood
19239	WM	73	63	62	98.4
20851	WM	51	87	78	89.6
10511	CF	54	105	56	53.3
17982	WF	43	91	59	64.8
20631	WF	44	83	59	71.8

TABLE VIII—Encephalitis

Clinical No.	Race and Sex	Age	Blood Dextrose in mg. per 100 cc.	Cerebrospinal Fluid Dextrose in mg. per 100 cc.	Percentage Ratio of Cerebrospinal Fluid to Blood
19079	WM	35	70	62	88.5
17260	WM	31	66	56	84.8
19854	WM	31	66	54	81.8
19404	WM	37	74	64	86.4
17388	CM	25	77	53	68.8
18652	CF	16	91	53	58.2
18285	WF	16	83	55	66.2

TABLE IX—Paralysis Agitans

Clinical No.	Race and Sex	Age	Blood Dextrose in mg. per 100 cc.	Cerebrospinal Fluid Dextrose in mg. per 100 cc.	Percentage Ratio of Cerebrospinal Fluid to Blood
18807	WM	75	105	55	52.3
18691	WF	23	74	50	67.5

TABLE X—Multiple Sclerosis

Clinical No.	Race and Sex	Age	Blood Dextrose in mg. per 100 cc.	Cerebrospinal Fluid Dextrose in mg. per 100 cc.	Percentage Ratio of Cerebrospinal Fluid to Blood
20451	WF	37	67	50	74.6

TABLE XI—Psychosis with Cerebral Arteriosclerosis

Clinical No.	Race and Sex	Age	Blood Dextrose in mg. per 100 cc.	Cerebrospinal Fluid Dextrose in mg. per 100 cc.	Percentage Ratio of Cerebrospinal Fluid to Blood
21061	CF	60	67	50	74.6
20861	CM	58	118	54	45.7
20853	WM	52	78	60	76.9
20902	WM	60	87	62	71.2
21031	CF	50	96	68	70.8
20898	CM	45	102	48	47.0
20963	CM	70	105	84	80.0
21034	CF	70	83	45	54.2
10942	WM	71	97	55	56.7
21000	WF	53	95	61	64.2
20400	WM	60	102	83	81.3
21083	WF	43	80	56	70.0
21086	CM	42	91	89	97.8
21113	CM	66	86	61	70.9

TABLE XII—Alcoholic Psychosis

Clinical No.	Race and Sex	Age	Blood Dextrose in mg. per 100 cc.	Cerebrospinal Fluid Dextrose in mg. per 100 cc.	Percentage Ratio of Cerebrospinal Fluid to Blood
20982	WM	45	91	61	67.0
21114	WF	38	85	64	75.2
20870	WM	36	87	61	70.1
20294	WM	47	105	53	50.4

Clinical No.	Race and Sex	Age	Blood Dextrose in mg. per 100 cc.	Cerebrospinal Fluid Dextrose in mg. per 100 cc.	Percentage Ratio of Cerebrospinal Fluid to Blood
14867	WM	27	105	88	83.8
18809	WF	20	91	47	51.6
7166	WF	25	95	52	54.7
17005	WF	23	97	48	49.4
20351	CF	20	88	35	37.5
18037	CF	32	83	30	36.1

Meningism. Incipient lobar pneumonia.

Five days after injection of 5 cc. of sterile normal horse serum into spinal subarachnoid space. Before the induction of meningitis, the findings were: Blood dextrose, 87; cerebrospinal, 51.

Five days after induction of aseptic meningitis by horse serum. Before, the findings were: Blood, 108; cerebrospinal fluid, 51.

Five days after induction of aseptic meningitis by horse serum. Before, the findings were: Blood, 97; cerebrospinal fluid, 49.

Influenzal meningitis.

Tuberculosis meningitis.

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THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Profession of Georgia.

65 Forrest Ave., Atlanta, Ga.

MARCH, 1926

ALLEN H. BUNCE, M. D., Editor

Publication Committee

CHAS. USHER, M. D.

S. J. LEWIS, M. D.

T. C. THOMPSON, M. D.

Articles are accepted for publication on condition that they are contributed solely to this Journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Reprints should be ordered within 30 days after the appearance of an article, since all type will be destroyed at the end of that time.

Editorial Department

CRAWFORD W. LONG STATUE TO BE UNVEILED

The statue of Crawford W. Long, the Georgian who was the first to use ether anesthesia, March 30th, 1842, will be unveiled in Statuary Hall, Washington, D. C., March 30th, 1926, which is the eighty-fourth anniversary of the discovery. All members of the Medical Association of Georgia are invited and urged to attend this great event.

Dr. Joseph Jacobs, of Atlanta, a former employee of Dr. Long, in his drug store in Athens, will be the first speaker. Judge R. B. Russell, Chief Justice of the Supreme Court of Georgia, on behalf of the citizens of Georgia who have contributed to the success of the project, will present the statue to Governor Clifford Walker, who in turn will present it to the Naitnoal Government, through Senator W. J. Harris, of Georgia.

The principal address of the occasion will be made by Dr. Hugh H. Young, of the Johns Hopkins Hospital and Senator George W. Pepper, of Pennsylvania, representing

the University of Pennsylvania, from which Dr. Long graduated in medicine in the class of 1839. Other speakers will be former Senator Rebecca L. Felton, Miss Virginia Gibbes, representing the nurses, Dr. Hamilton Long, Secretary of the Southern Association of Anesthetists and Dr. L. G. Hardman, a former friend and associate of Dr. Long, representing the Medical Association of Georgia, the members of which have contributed so liberally to the project. Dr. Frank K. Boland, President of the Crawford W. Long Memorial Association will preside. Exercises will take place at ten A. M. in Statuary Hall, at the Capitol.

Dr. Frank K. Boland, President of the Medical Association of Georgia, has appointed a committee to attend the exercises representing the Association, consisting of: Dr. L. G. Hardman, Chairman; all Officers of the Association; Councillors and all ex-Presidents.

GEORGIA STATE ASSOCIATION OF GRADUATE NURSES

The Georgia State Association of Graduate Nurses was organized in 1907. Its first work was the passage of the Nurse Practice Act. Since that time the members have met annually to increase their standards of service to the sick and to maintain their ethical relationships.

In 1919 when the American Nurses' Association was recognized it became one of the State's Units of that organization and divided itself into four Districts. The First District comprising the northwestern 32 counties with Atlanta as headquarters. The Second District comprising the northwestern 36 counties with Augusta as headquarters. The Third District comprising the 46 counties across the central portion of the State with Macon as headquarters. And the 39 more southern counties with Savannah as headquarters. The first, second and fourth districts maintain central registries, under nursing auspices for the conveniences of the public, the medical profession and their members in the service of the sick.

The Georgia State Association of Graduate Nurses is affiliated with the Federated Clubs. It contributes regularly to the Tallu-

lah Falls School, the American Nurses' Association Relief Fund, and the Robb Memorial Scholarship Fund.

It is a member of the National Child Hygiene Association and the State Council of Social Agencies.

Miss Lucy M. Hall, of Savannah, Ga., is President.

The next annual Convention will be held in Savannah, Ga.

The American Journal of Nursing is the official publication of the Georgia State Association of Graduate Nurses.

The program has been completed for the biennial convention of the American Nurses' Association, May 17 to 22, at Atlantic City.

With thirteen other health associations, the nursing organizations will participate in the American Health Congress, which will meet at Atlantic City the same week. Speakers of national and international reputation on the program will include Sir Arthur Newsholm, K.C.B., M.D., F.R.C.P., well known in public health work in England, Dr. C. E. A. Winslow, President of the American Public Health Association, Dr. Ray Lyman Wilbur, President of Leland Stanford University and Dr. George E. Vincent, President of the Rockefeller Foundation.

The Georgia State Association of Graduate Nurses and the State Board of Examiners for Nurses of Georgia have established a joint office headquarters at 41 Forrest Ave., Atlanta, Ga. Miss Jane VanDeVrede has been elected Secretary.

WHAT DOES THE STATE HEALTH DEPARTMENT DO?

The question is often asked, "What Does the State Department of Health Do?" Dr. Paul B. Brooks, Deputy State Commissioner of Health, New York, attempted briefly to answer this query in a radio talk which was broadcast Friday evening from Station W.G.Y. As the speaker's time was limited he was able to touch only the "high spots."

"The organization," said Dr. Brooks, "includes about 400 people, and its head is the State Commissioner of Health. Its functions are largely those of supervising, advising and assisting local health officials in their work. However, the Public Health Law gives the Commissioner of Health powers which are sufficiently broad so that prompt and vigorous action can be taken in most serious emergencies in which public health is threatened. The Department is organized into

nine divisions, each in charge of a director.

"The Division of Sanitation deals chiefly with engineering problems, like those relating to public water supplies and sewage disposal. Last year it inspected over 500 organized summer camps. It investigates complaints of nuisances where the local authorities need help or fail to act. Probably no other division has to deal with so many puzzling problems requiring careful study and exercise of judgment.

"The Division of Laboratories each year makes between two and three hundred thousand examinations of specimens sent in by physicians. It analyzes water samples and produces several kinds of antitoxins and vaccines; in 1923 it sent out over 48,000 packages of diphtheria antitoxin alone. Among its functions is the supervision of the work of about 100 local laboratories. The State Laboratory is said to be one of the best organized and equipped of its kind in the world. Every year health workers from many countries and from other states visit this and other divisions of the department.

"The Division of Vital Statistics receives, studies and interprets reports of births, deaths and marriages. This work is sometimes referred to as 'the bookkeeping of humanity.'

"The Division of Communicable Diseases receives reports of communicable diseases and advises and assists local health officials in the prevention and control of epidemics.

"The Division of Maternity, Infancy and Child Hygiene specializes in prompting better health among mothers and among children under school age. It carries on extensive educational work, chiefly through demonstrations and literature.

"The Division of Public Health Education is responsible for the publications of the department, including a weekly paper called 'Health News,' and 'News releases' going to the newspapers, and arranges for the weekly 'Radio Health Talks.'

"The Division of Tuberculosis inspects tuberculosis hospitals, holds demonstration clinics to which local physicians bring suspected cases for physical and X-ray examination, and assists generally in the control of tuberculosis.

"The Division of Social Hygiene deals with the prevention of venereal diseases. It assists and supervises local clinics, furnishes lectures to schools and organizations on request, and by various other means does educational work.

"The Division of Public Health Nursing supervises the work of about fifty department field nurses, assists and advises several hundred local public health nurses and aids communities in securing such nurses.

"An important branch of the organization is a corps of fifteen district state health officers, each in charge of a district of from three to five counties. The district officer is the connecting link between the department and the local health officials."

District and County Societies

District Editors

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. McGee, H. H., Savannah. 2. Watt, C. H., Thomasville. 3. Greer, Chas. A., Oglethorpe. 4. Williams, O. O., West Point. 5. Pitts, Jno. B., Atlanta. 6. Thompson, O. R., Macon. | <ol style="list-style-type: none"> 7. McCord, M. M., Rome. 8. Carter, D. M., Madison. 9. Bennett, J. C., Jefferson. 10. Lee, F. Lansing, Augusta. 11. Mixson, W. D., Waycross. 12. Cheek, O. H., Dublin. |
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FIRST DISTRICT MEDICAL SOCIETY

The Mid-Winter Meeting of the First District Medical Society was held in Millen, February 16, 1926. The meeting was called to order by the President, Dr. Miller Byne, of Waynesboro.

Invocation by the Rev. Kopp, of Sylvania.

Address of Welcome by Mr. Walter Harrison, of Millen. Response to address of welcome by Dr. John Daniel, of Savannah.

Minutes of last meeting were read and approved, together with the financial report.

The first paper on the program was by the State President, Dr. Frank K. Boland, of Atlanta, on "Intra-Thoracic Surgery." Discussion: Dr. W. H. Myers, Dr. C. Thompson, Dr. Charles Crane, Dr. Walker Evans, Dr. A. J. Mooney. Discussion closed by Dr. Boland.

Due to the inability of Dr. Goodrich to be present his paper was read by Dr. R. L. Miller, of Waynesboro, on "Traumatic Hernia." Discussion: Dr. Frank K. Boland, Dr. Chas. Crane, Dr. F. F. Floyd, Dr. A. J. Mooney. Closed by Dr. Miller for Dr. Goodrich.

Dr. J. W. Daniel, Savannah, on "The Uses and Abuses of Salt Solution and of Glucose Solution." Discussion: Dr. Cleveland Thompson, Dr. Frank K. Boland. Closed by Dr. Daniel.

Dr. E. N. Gleaton, Savannah, on "Acid Milk in Infant Feeding." Discussion: Dr. R. L. Miller, Dr. John W. Daniel, Dr. W. R. Daney. Closed by Dr. Gleaton.

Dr. J. W. Shearouse, Savannah, on "Complications of Gonorrhea." Discussion: Dr. R. L. Miller, Dr. E. T. Coleman, Dr. W. R. Lovett, Dr. John W. Daniel. Closed by Dr. Shearouse.

Dr. Cleveland Thompson, Millen, on "Report of Case of Cancer of Rectum, with Operation and Presentation of Patient." Discussion: Dr. Chas. Crane, Dr. Frank K.

Boland, Dr. F. F. Floyd, Dr. A. J. Mooney. Closed by Dr. Thompson.

Dr. Julian Quattlebaum, Savannah, on "Chronic Appendicitis." Discussion: Dr. W. R. Daney, Dr. Wm. Shearouse, Dr. C. Thompson, Dr. W. H. Myers, Dr. A. J. Mooney, Dr. Chas. Crane. Closed by Dr. Quattlebaum.

Adjournment for lunch.

A most delightful barbecue lunch was served by the wives of the Jenkins County members and was thoroughly enjoyed by all.

After lunch Dr. Daniel made a short talk, urging the members of the Jenkins County Society, and their wives to help put the Ellis Health Law into effect in their county.

Dr. Abererombie talked about the advantages of the Ellis Health Law and gave some Vital Statistics showing the increased efficiency of school children in communities where this law was in operation.

Dr. L. F. Lanier, Rocky Ford, on "Carbuncles." Discussion: Dr. F. F. Floyd and Dr. Q. A. Mulkey.

Dr. H. H. McGee resigned as Secretary-Treasurer, due to the fact that he is going to Philadelphia to take a special course in Roentgenology. Dr. W. V. Long, 124 East Oglethorpe Ave., Savannah, was elected to succeed Dr. McGee.

Dr. Mooney thanked in very flowery terms the Jenkins County members and especially the ladies for the delightful barbecue lunch.

Meeting adjourned. Next meeting to be held in Savannah in the summer.

The following members attended the meeting:

Dr. Cleveland Thompson, Millen; Dr. A. J. Mooney, Statesboro; Dr. E. N. Gleaton, Savannah; Dr. Wm. Shearouse, Savannah; Dr. Charles Crane, Augusta; Dr. Wm. H. Myers, Savannah; Dr. W. R. Lovett, Sylvania; Dr. John W. Daniel, Savannah; Dr. L. F. Lanier, Rocky Ford; Dr. Walker

Evans, Haleyondale; Dr. F. K. Boland, Atlanta; Dr. Wm. R. Daney, Savannah; Dr. R. L. Miller, Waynesboro; Dr. Miller Byne, Waynesboro; Dr. H. H. McGee, Savannah; Dr. W. E. Rushing, Millhaven; Dr. E. T. Coleman, Graymont; Dr. T. F. Abercrombie, Atlanta; Dr. Q. A. Mulkey, Millen; Dr. W. C. McCarver, Vidette; Dr. Howard Ezell, Oliver; Dr. A. B. Reddick, Sylvania; Dr. Henry Grady Lee, Millen; Dr. J. B. Lewis, Waynesboro; Dr. Harry Sutton, Midville; Dr. F. F. Floyd, Statesboro; Dr. J. K. Quattlebaum, Savannah; Dr. H. J. Morton, Waynesboro; Dr. H. F. Bent, Midville; Dr. A. A. Morrison, Savannah; Dr. J. E. Morrison, Savannah, and Dr. B. F. Bond, Savannah.

H. H. McGEE, Secretary-Treasurer.

Editor's Note: We have enjoyed working with Dr. McGee since his election last Summer, for his reports were always received promptly and his willingness to co-operate with us was very evident. We regret to give Dr. McGee up but are anticipating his return to Savannah after the completion of his course in Philadelphia.

FULTON COUNTY MEDICAL SOCIETY

An interesting meeting of the Fulton County Medical Society was held Thursday, January 21, 1926, at the Academy of Medicine, 32 Howard St. Dr. J. L. Campbell presided and there were 167 present.

Applications for membership were received from the following named: Drs. W. C. Waters, Jr., E. F. Fuqua and Maude E. Foster.

Dr. R. T. Dorsey presented a clinical talk on the subject of "Tularemia," which was discussed by Drs. F. P. Calhoun, C. E. Waits, L. M. Gaines, W. F. Lake, C. G. Boland, E. D. Shanks and M. C. Pruitt.

An address by Dr. J. L. Campbell was on "Visions from Medical History as an Inspiration to a Professional Career." This was discussed by Dr. E. C. Davis and Dr. E. C. Thrash.

The scientific paper of the evening was read by Dr. Theodore Toepel, the title of which was "Influence of Posture on the Development of the Child." This paper was discussed by Drs. C. E. Boynton, W. L. Funkhouser and Arch Elkin.

After the reports of the standing committees, several announcements of importance were made. All members of the Fulton County Medical Society were invited to at-

tend a clinic to be held by the Atlanta Graduate School of Physicians and Surgeons, at the Grady Hospital, every afternoon at 5:00 o'clock.

The Steiner Clinic announced the usual weekly conference for each Wednesday afternoon, and extended a cordial invitation to all members of the profession.

Dr. Campbell, President, announced that Dr. F. K. Boland had been appointed general chairman for the Southern Medical Convention, and as such requested him to announce the names of the chairmen appointed as hosts to the different sections.

A request was also reported that members urge their wives to join the Woman's Auxiliary before the convention of the Southern Medical Association.

The following standing committees were appointed for the year:

Public Policy and Legislation—Dr. C. E. Waits, Chairman; Dr. C. C. Aven, Dr. Hal C. Miller.

Public Health—Dr. W. F. Wells, Chairman; Dr. Jno. F. Denton, Dr. B. L. Shackelford.

Publicity Committee—Dr. Jack W. Jones, Chairman; Dr. Paul W. Best, Dr. M. C. Pruitt.

Meeting adjourned.

Respectfully submitted,

GRADY E. CLAY, M.D.,

Secretary.

FULTON COUNTY MEDICAL SOCIETY AND THE GORGAS MEMORIAL INSTITUTE

Cooperating with the general plan of the Board of Directors of the Gorgas Memorial Institute, members of the Fulton County Medical Society have for the past several weeks been broadcasting health talks over the Radio Station WSB, the Atlanta Journal, Atlanta, Ga.

Information contained in these health addresses is prepared by the Gorgas Memorial Institute in Chicago, and are of general interest to the public, and tend to emphasize the importance of preventive measures in all lines of public health.

We have met with the utmost courtesy at all times, and wish to take this opportunity to express our thanks and appreciation to

Mr. Kay and Mr. Dobbs and their staff at the Biltmore Studio, for their many kindnesses in handling our publicity, as well as the courtesy shown the doctors broadcasting.

Among those to assist us with this work have been men prominent in the profession, and those deeply interested in promoting the welfare and progress of all activities engaged in by the Fulton County Medical Society. The following men have been active in this work: Dr. J. K. Fancher, Dr. L. B. Robinson, Dr. N. M. Owensby, Dr. R. R. Daly, Dr. W. H. Hailey, Dr. W. A. Flick, Dr. Zach W. Jackson, Dr. E. A. Allen, Dr. E. H. Green.

GRADY E CLAY, M.D., Secretary.

RANDOLPH COUNTY MEDICAL SOCIETY HOLDS IMPORTANT MEETING

The regular monthly meeting of the Randolph County Medical Society was held in Cuthbert on February 4th. The day was a banner one in the history of this Society. Through the courtesy of the University of Georgia Medical Department it was our pleasure to have with us the following doctors who conducted a very interesting and beneficial Clinic at the local Hospital all day: Dr. V. P. Sydenstricker, Dr. H. M. Michel and Dr. W. A. Mulherin, all of Augusta.

Every Randolph County physician who was in the county that day attended this Clinic, and most of them brought interesting cases from among their patients for examination and discussion by the visiting specialists.

Patterson's Hospital was placed at our disposal for the day's Clinic, and the management of details was conducted most smoothly and efficiently under the capable direction of the Supervisor, Miss Effie Davis, and her fine corps of student nurses. Other nurses of the county also volunteered their aid. There were some fifty to sixty cases brought to the Clinic, examination and discussion regarding same being conducted by Drs. Sydenstricker, Mulherin and Michel before the assemblage of local physicians. A number of doctors from surrounding counties also were present and entered into the discussions of the day.

At the noon hour a most delicious luncheon was served to the Society and visitors by the Hospital Staff. The student nurses, who in connection with their training course are taking a special course in dietetics at Andrew College had charge of this meal and added greatly to the pleasure of the occasion by serving same in the dining room of the Nurses' apartments. The reputation always held by Cuthbert for whole-souled hospitality was maintained in this instance most graciously as we sat down and enjoyed the bountiful meal, including quail on toast and other good things. Those present were given a tour of inspection around the excellently equipped hospital and all joined in declaring the entire day a complete success.

G. Y. MOORE, Secretary.

COUNTY SOCIETIES REPORTING FOR 1926

Evans County Medical Society—100%

Evans County Medical Society announces the following officers for 1926:

President—B. E. Miller, Claxton.

Secretary-Treasurer—D. S. Clanton, Hagan.

Campbell County Medical Society

Campbell County Medical Society announces the following officers for 1926:

President—A. J. Greene, Union City.

Secretary-Treasurer—R. T. Camp, Fairburn.

Coffee County Medical Society

Coffee County Medical Society announces the following officers for 1926:

President—W. F. Sibbett, Douglas.

Vice-President—H. C. Whelchel, Douglas.

Secretary-Treasurer—T. H. Clark, Douglas.

Delegate—Jno. R. Smith, Douglas.

Alternate—S. L. Vinson, Douglas.

Board of Censors—Jno. R. Smith, G. M. Ricketson and D. H. Meeks.

Stewart-Webster Counties Medical Society

The Stewart-Webster Counties Medical Society announces the following officers for 1926:

President—G. G. Lunsford, Weston.

Vice-President—J. H. Foster, Preston.

Secretary-Treasurer—Milton Walton, Lumpkin.

Delegate—J. M. Kenyon, Richland.

Rabun County Medical Society

The Rabun County Medical Society announces the following officers for 1926:

President—L. Neville, Dillard.

Vice-President—J. C. Dover, Clayton.

Secretary-Treasurer—J. A. Green, Clayton.

Bibb County Medical Society

The Bibb County Medical Society announces the following officers for 1926:

President—O. R. Thomson, Macon.

Secretary-Treasurer—R. G. Newton, Macon.

Irwin County Medical Society

The Irwin County Medical Society announces the following officers for 1926:

President—S. L. McElroy, Ocilla.
Vice-President—J. C. Luke, Ocilla.
Secretary-Treasurer—G. W. Willis, Ocilla.
Delegate—A. Harper, Wray.

Hart County Medical Society

The Hart County Medical Society announces the following officers for 1926:

President—Geo. S. Clark, Hartwell.
Vice-President—J. I. Jenkins, Bowman.

Secretary-Treasurer—A. O. Meredith, Hartwell.
Delegate—B. C. Teasley, Hartwell.
Alternate—W. E. McCurry, Hartwell.
Boards of Censors—W. E. McCurry, Geo. S. Clark and B. C. Teasley.

Cobb County Medical Society

The Cobb County Medical Society announces the following officers for 1926:

President—F. P. Lindley.
Vice President—J. E. Lester, Kennesaw.
Secretary-Treasurer—R. W. Fowler, Marietta.
Delegate—C. W. Burtz, Acworth.
Alternate—J. E. Lester, Kennesaw.

Woman's Auxiliary of the Medical Association of Georgia

OFFICERS

President.....Mrs. William H. Myers, Savannah Secretary-Treasurer.....Mrs. A. J. Mooney, Statesboro
Vice-President-at-large.....Mrs. C. W. Roberts, Atlanta Parliamentarian.....Mrs. Allen H. Bunce, Atlanta

District Managers

1st District.....Mrs. A. J. Waring, Savannah	7th District.....Mrs. W. H. Perkinson, Marietta
2nd District.....Mrs. Gordon Chason, Bainbridge	8th District.....Mrs. Paul Holliday, Athens
3rd District.....Mrs. R. H. Pate, Unadilla	9th District.....Mrs. J. H. Downey, Gainesville
4th District.....Mrs. R. S. O'Neal, LaGrange	10th District.....Mrs. T. E. Oertel, Augusta
5th District.....Mrs. James N. Brawner, Atlanta	11th District.....Mrs. B. H. Minchew, Waycross
6th District.....Mrs. C. H. Richardson, Jr., Macon	12th District.....Mrs. T. C. Thompson, Vidalia

FIRST DISTRICT WOMAN'S AUXILIARY

The First District Auxiliary held its second annual meeting in the hotel parlors at Millen, Georgia, on February 16th, 1926.

Mrs. A. Warring, District Chairman, being absent, Mrs. W. H. Myers, State President, presided. Mrs. J. W. Daniel was appointed secretary pro tem. Mrs. Cleveland Thompson extended the address of welcome, which was responded to by Mrs. W. H. Myers, of Savannah. The minutes of the meeting in August were read. Three Auxiliaries have been organized during the past year. The President explained the reasons and the work of the Auxiliaries. Reports from the delegates were read by Mrs. J. W. Daniel, Savannah; Mrs. J. W. Powell, Sylvania; and Mrs. A. J. Mooney, Statesboro. The State President read that the proposed revision of the Constitution and By-Laws by committee would be acted upon at the meeting to be held in Dallas, Texas, in April, 1926. Mrs. L. F. Lanier, of Rock Ford, asked if several counties where there were few members, could function under our organization. Mrs. A. J. Mooney explained

lack of dues in 1924. Mrs. L. F. Lanier presented charts showing the splendid work the Screven County Auxiliary is doing in the rural schools. Mrs. J. W. Powell presented charts of conditions that exist from lack of care and attention of the teeth in children. After the meeting adjourned, Mrs. W. H. Myers very graciously sang a group of songs. The social side of the meeting was greatly enjoyed. Bridge and Rook being played, after which the ladies joined the doctors where a splendidly prepared barbecue was served.

Ladies present were: Mrs. R. L. Miller, Waynesboro; Mrs. L. F. Lanier, Rock Ford; Mrs. A. J. Mooney, Statesboro; Mrs. W. R. Daney, Savannah; Mrs. W. C. M. Carver, Vidalia; Mrs. A. D. Lewis, Sylvania; Mrs. W. E. Rushing, Mill Haven; Mrs. Cleveland Thompson, Millen; Mrs. M. E. Perkins, Millen; Mrs. Q. A. Mulkey, Millen; Mrs. J. W. Powell, Sylvania; Mrs. J. P. Lewis, Waynesboro; Mrs. W. H. Myers, Savannah; Mrs. J. W. Daniel, Savannah; Mrs. J. W. Shearouse, Savannah; Mrs. H. J. Morton, Waynesboro.

KATHERINE DANIEL,
Recording Secretary, Pro Tem.

WOMAN'S AUXILIARY TO THE FULTON COUNTY MEDICAL SOCIETY GIVES LARGE BENEFIT BRIDGE

On the afternoon of February 10th a large Benefit Bridge was sponsored by the Woman's Auxiliary to the Fulton County Medical Society at the Ansley Hotel Roof Garden. Very much interest centered in a number of handsome prizes and hand made prizes were provided for each table.

Mrs. Clinton Reed was Chairman of Prizes and performed her duties most efficiently. Mrs. E. C. Thrash was Chairman of arrangements and was delighted with the unanimous cooperation of the members, making the affair quite a success, socially and financially. Our membership now is one hundred twenty and we hope on account of the coming Southern Convention next fall, very soon, to enlist the wife of every member of the Fulton County Medical Society.

MRS. C. W. ROBERTS,
Press Chairman, Woman's Auxiliary to
the Fulton County Medical Society.

WOMAN'S AUXILIARY TO THE MEDICAL ASSOCIATION OF CLARKE COUNTY

We are one year old! This fellowship has given us knowledge and understanding of each other we never would have gotten otherwise. Out of twenty-one members we have had an average attendance of twelve. Four standing committees have functioned. Three Executive Board meetings have been called and at each of these meetings six members were present, five constituting a quorum. All business was attended to. Ten different members have been hostess to the Auxiliary.

We have had five doctors and two educators on our programs. All have given interesting information. The outstanding talks were the purpose of the Athens Child Health Demonstration Clinic by Dr. Bolling Gay. Vital Statistics, using charts to illustrate the birth, death and contagious disease ratings since the beginning of the work in Clarke County up to the present day by Dr. J. D. Applewhite, who is county Health Officer. Superstitions and Disease among the colored people by Dr. Linton Gerdine. A committee is working in reference to the

Health Magazine Hygeia. We wish to procure the agency for this magazine. All of our members cooperated in carrying on the work of the Auxiliary and we have assisted other organizations in advancing health.

Officers elected were:

Mrs. P. L. Holliday, President.

Mrs. W. H. Cabaniss, Vice President.

Mrs. H. M. Fullilove, Secretary-Treasurer.

MRS. DAN DuPREE,
Publicity Chairman, Auxiliary to the
Clarke County Medical Association.

NEWS ITEMS

Dr. J. Robert Simpson, formerly of Gainesville, has moved to Miami, Florida, and announces the opening of offices at 1051 Seybold Building. He has the heartiest best wishes of his friends for success in his new home.

Dr. Keith C. Rice is being welcomed as a new member of the medical profession of Atlanta. He has opened offices at 78 Forrest Avenue and will limit his practice to General Surgery.

Dr. W. H. Steele has removed to Griffin. The members of Butts County Medical Society regret that his removal takes him from their county.

Dr. W. E. Wood, of Dalton, member of Whitfield County Medical Society, is in the Mayo Clinic, Rochester, Minnesota, on account of serious illness.

Dr. T. F. Abercrombie, Commissioner of Health and Secretary of State Board of Health, has been appointed a member of the Committee on Public Policy and Legislation for the three year term to take the place of the late Dr. B. H. Wagnon.

Dr. J. D. Manget, one of our prominent physicians, was named President of the Staff of the Georgia Baptist Hospital of Atlanta. Other officers named were: Dr. Frank Wells, 1st Vice President; Dr. W. A. Selman, 2nd Vice President; Dr. Allen H. Bunce, Secretary. Among the speakers were: Dr. C. W. Roberts, Dr. T. C. Davison, Dr. Charles W. Daniel and Mr. Eugene Black.

Dr. T. R. Aycock, of Walton County, has been in charge of the baby conferences at the Monroe Hospital for the examination of children.

Dr. D. P. Luke, Secretary of Mitchell County Medical Society, made free examinations and gave treatment to the people of his section at Camilla on March 2nd.

Drs. F. X. Mulherin, H. P. Harrell and G. L. Kelly reported clinical cases at a recent meeting of the Richmond County Medical Society. Dr. J. C. Wright read a paper on the "Surgery of Angina Pectoris." Dr. V. P. Sydenstricker read a paper on the "Medical Aspects of Angina Pectoris."

Col. James L. Bevans with others from Thomasville attended a conference of the Southern Division of the American College of Surgeons held at New Orleans. Dr. A. D. Little also attended the conference and was a member of the Credentials Committee from this State.

Dr. George E. Atwood is health physician for Waycross and Ware County. Dr. B. H. Minchew is assisting the health department in their work.

Dr. C. B. Slocumb, formerly of Dorun,, has moved to Sarasota, Florida.

Dr. J. E. Lester, of Acworth, has been appointed Cobb County Health Officer.

Dr. Emmett B. Anderson, of Americus, has been elected as Physician of Sumter County chaingang. This election was occasioned by the resignation of Dr. F. L. Cato, Americus.

Dr. M. E. Winchester, of Thomasville, has been appointed by the State Board of Health as Director of Health Work for the State of Georgia.

Dr. Hiram Williams, of Cordele has gone to New Orleans where he will take a course at the Tulane University Medical School. He will later go to New York for further study.

The life-size statue of Dr. Crawford W. Long, famous Georgian who first used ether as an anesthetic, which is to be placed in the National Hall of Fame, is nearing completion at the plant of the Georgia Marble Company near Tate.

Dr. W. E. Person, of Atlanta, was elected President of the Association of Medical and Dental Officers of the U. S. Army.

Dr. George T. Olmstead has been elected Medical Director of the Savannah Hospital to succeed Dr. R. V. Martin. Dr. Charles Usher was re-elected Chief of Staff.

Dr. W. R. Dancy, of Chatham County Medical Society, was honor guest at the President's dinner of the Georgia Medical Association which was held at Oglethorpe Club.

The Shrine is spending about one million dollars per annum for building, maintaining and adding to their equipment for their hospital for crippled children. They have now about five hundred patients.

Dr. J. Render Anthony, Medical Director of the Griffin Hospital, reports that last year was the most successful the institution has ever had. His report shows that they treated 558 patients, paid off a deficit for the preceding year and closed with a nice balance to their credit in bank.

The Mayor and City Council of LaGrange are considering a levy of one cent per gallon tax on gas for the purpose of paying the indebtedness of the City Hospital.

The 1925 annual report of the Americus and Sumter County Hospital shows that their earn-

ings were sufficient to defray all current expenses. Three hundred and seventy-nine patients were taken care of during the year.

United States Department of Labor, Children's Bureau, has forwarded to the Association six complimentary posture charts. Any one desiring a set of these charts may procure them by sending fifty cents to the Superintendent of Documents, Washington, D. C.

Dr. C. M. Curtis, of College Park, was elected Vice President of the Surgical Association of the Atlanta and West Point Railroad, the Western Railway of Alabama, the Central of Georgia Railroad, and the Elberton and Eastern Railroad. The new Executive Board for these Railroads consists of Dr. J. R. Garner, Atlanta, Chairman; Dr. Enoch Calloway, LaGrange; Dr. Willis Jones, Atlanta; Dr. E. E. Murphey, Augusta.

Dr. Wallace Mathews, of Quitman, has been elected Physician for Brooks County.

Dr. D. H. Monroe, of Emerson, has been elected Health Officer for the city of Cartersville and was recently named District Health Commissioner for Bartow County.

Dr. E. T. Coleman, Graymont; Dr. C. L. Ayers, Toccoa; Dr. Laetus Sanders, Commerce; Dr. G. R. Wells, Monroe, and Dr. Joe L. Matthews, Dallas, were named delegates by Governor Walker to attend the National Council on Medical Education and Hospitals at Chicago February 15-18.

Dr. D. P. Luke, Secretary of Mitchell County Medical Society, arranged a free clinic for diagnosis and treatment of any disease known to the people of his section which was held at Camilla on March 2nd. Emory University fostered and gave this clinic.

BOOKS RECEIVED

Ears and the Man, Studies in Social Work for the Deafened, by Annetta W. Peck, Estelle E. Samuelson and Ann Lehman of the New York League for the Hard of Hearing with an introduction by Wendell C. Phillips, M.D., President-Elect of the American Medical Association. Contains 217 pages. Publishers: F. A. Davis Company, 1926, Philadelphia. Price: Cloth, \$2.00 net.

Ophthalmic Neuro-Muology, A Study of the Normal and Abnormal Actions of the Ocular Muscles from the Brain side of the question, by G. C. Savage, M.D., LL.D., Professor of Ophthalmology in the Medical Department of Vanderbilt University from 1886 to 1911. Contains 227 pages with 39 Full-Page Plates and 12 Illustrative Figures. Published by the Author, 167 Eighth Ave., North, Nashville, Tennessee.

Headache, Its Causes and Treatment, by Dr. Thomas F. Reilly, sometime Professor of Medicine, Forham University, attending Physician Bellevue and Allied Hospitals, Fordham Division, and at St. Vincents Hospital. Containing 246 pages. Publishers: P. Blakiston's Son & Company, 1012 Walnut Street, Philadelphia. Price: Cloth, \$3.00 net.

The Conquest of Cancer, by H. W. S. Wright, M. S., F. R. C. S. Containing 82 pages. Publisher: E. P. Dutton & Co., 681 Fifth Ave., N. Y. Price, \$1.00.

What I Believe, by Bertland Russell. Containing 87 pages. Publisher: E. P. Dutton & Co., 681 Fifth Ave., N. Y. Price, \$1.00.

Prometheus or Biology and the advancement of Man, by H. S. Jennings and Henry Walters, Professor of Zoology and Director of the Zoological Laboratory, Johns Hopkins University. Containing 86 pages. Publisher: E. P. Dutton & Co., 681 Fifth Ave., N. Y. Price, \$1.00.

Hypatia, or Woman and Knowledge, by the Hon. Mrs. Bertland Russell. Containing 81 pages. Publisher: E. P. Dutton & Co., 681 Fifth Ave., N. Y. Price, \$1.00.

Lysistrata, or Woman's Future and Future Woman, by Anthony M. Ludovici Author of "Woman: a Vendication," A Defence of Aristocracy. Containing 110 pages. Publisher: E. P. Dutton & Co., 681 Fifth Avenue, New York City. Price: Cloth, \$1.00.

Collected Papers of the Mayo Clinic and the Mayo Foundation, edited by Mrs. M. H. Mellish. Volume XVI. Published May, 1925. Containing 1331 pages Illustrated. Publishers: W. B. Saunders Company, Philadelphia.

Allergy: Asthma, Hay Fever, Urticaria and Allied Manifestations of Reaction, by William W. Duke, Ph. B., M. D. Containing 339 pages with 75 illustrations. Publishers: The C. V. Mosby Company, St. Louis. Price, \$5.50.

Mouth, Throat, Nose, Ear and Eye, by Thomas H. Odeneal, M.D., Otologist, Rhinologist, Laryngologist and Ophthalmologist to the Beverly Hospital Corporation, Beverly, Mass. Contains 428 pages. Publishers: P. Blakiston's Son & Company, 1012 Walnut Street, Philadelphia. Price: Cloth, \$4.00 net.

Thrasymachus or the Future of Morals, by C. E. M. Joad. Containing 88 pages. Publishers: E. P. Dutton & Company, 681 Fifth Avenue, New York City. Price, \$1.00.

BOOK REVIEWS

A Manual of Physical Diagnosis. By Austin Flint, M.D., LL.D., late Professor of the Principles and Practice of Medicine and of Clinical Medicine in Bellevue Hospital Medical College, etc. Ninth edition, revised by Henry C. Thatcher, M.S., M.D., Attending Physician, Lincoln Hospital, and Assistant Attending Physician, Roosevelt Hospital, New York, 12 mo. of 320 pages, illustrated. Lea and Febiger, Philadelphia and New York. 1925. Price, \$3.25.

This manual was written for the student at the beginning of Physical Diagnosis and was intended by the author to make a more thorough elementary book, and, while it is invaluable to the student and the practitioner, it should be supplemented by a more advanced work.

In this book, the diagnosis of incipient tuberculosis is carefully considered, and additional emphasis has been placed upon inspection and palpation.

"Advancement in the laboratory side of diagnosis has in recent years discouraged the acquisition of the thoroughness and skill in the employment of simpler methods, which were so essential to the earlier masters of Clinical Medicine," and we seem to forget that great work was accomplished, years ago, by men who did not have access to the expensive laboratory equipment that practically all of the doctors of today have. While it is recognized that an equipment of this character is necessary for a full scientific examination and diagnosis, we realize that the methods that this volume sets forth are essential, and that their value will not be properly appreciated until after a few years of practice when the average doctor must frequently make vital decisions and act in critical situations without assistance.

RAIFORD T. WARNOCK, M.D.

The Life of Sir William Osler. By Dr. Harvey Cushing. Publishers: Oxford Press, 45 32nd St., New York.

When I first saw these two large volumes I was a little discouraged, and thought it would be a hard job to read all. When I finished volume two I regretted that there was not more to read. I felt like sending the author my thanks for the treat he had given me. The book so reflects the personality of Osler that it acts as a stimulant to the reader to make him want to work and to accomplish something, just as Osler during life stimulated those with whom he came in contact. Another delightful feature of the book is that it suggests other good books to read, and all of these suggestions are profitable and interesting.

One of the most striking of earliest characteristics of William Osler was reverence for his father and mother, and for his two teachers. He was constantly on his guard through life to work so as to please them. Another characteristic was his great industry. He was always busy working at something, he read an enormous number of books, medical and literary. He made his rule to read at least one-half hour in bed after retiring. He always read with a note book and pencil in hand, and made notes of those things he wished to remember. In this way he had a large stock of apt quotations with which to illustrate his talks and writings. He was a great writer, not only preparing his lectures before hand, but writing many articles for medical journals and books. His own text book of medicine was so popular that it required revision every three years. His correspondence with his family and friends was very extensive. He was regular in his attendance upon medical societies, both at home and abroad. His great work, however, was a teacher. He was the first in America to adopt bed-side teaching. His personality was so attractive and his enthusiasm for work was so great that he inspired his students. He was perhaps the greatest teacher America has ever known. He never worried about financial success. Though he never knew real poverty, there were times when his pockets were empty. He never endeavored to build up a large private practice, but would much rather do teaching, laboratory and research work. In spite of this, his private work became so extensive that he was almost worked to death before he left America for England. He was a great lover of humanity and made many strong friendships which lasted throughout his life. He was very fond of children and took great joy in putting aside his serious work to play with them. He was very helpful to young men and was never too busy or tired to give a word of encouragement to those about him. He always avoided quarrels or controversy, and was a great peace maker among the doctors. He had a great tenacity of purpose as shown in his long and successful fight against typhoid fever in Baltimore, and his long crusade against tuberculosis. His loyalty and devotion to his home and family, to his friends, to his profession and to the whole world in his fight against disease is shown throughout his life. His one great hobby was books. He rendered great service to the libraries in every community where he lived, and his own great collection of rare old books was one of the finest in the world.

Anyone who fails to read this book misses a real literary treat. Every doctor should read it, for it is a source of comfort and encouragement, an ethical guide book, and a stimulant to higher endeavor.

F. G. HODGSON, M.D., Atlanta.

OBITUARY

Dr. Cheston King died February 7th at the Wesley Memorial Hospital. He was a prominent physician of Atlanta for more than twenty years and owner of the Cheston King Sanatorium. He was a member of the Fulton County Medical Society, the Masonic Lodge and the B. P. O. E.

Dr. J. B. Chastain, of Blue Ridge, was buried at the family burying ground on January 29th. He belonged to a prominent family, was a member of the Blue Ridge County Medical Society, Vice President of the Fannin County Bank and former State Senator from his District.

Dr. Sterling Gibson, of Thomson, died on February 10th at his home after an illness of short duration. He was President of the City Board of Health, was a member of the Masonic Fraternity, the Knights of Pythias, the Junior Order United American Mechanics and of the Methodist Church. He was director of the First National Bank, also the McDuffie Bank and a member of the firm of the Gibson Drug Company.

Dr. P. T. Reynolds, of Monroe, who died of influenza was buried on January 19th. Funeral services were held at the First Methodist Church. He was born at Warrior Strand, Alabama, and after attending Auburn, was graduated in medicine at the University of Alabama. He was a member of the Phi Delta Theta Fraternity.

MARRIAGES

Dr. Powell Allen, of Milledgeville and New York, and **Miss Alma Falbeau**, of New York City, were married at the Episcopal Church in Milledgeville. He is the son of Dr. H. D. Allen, Sr.

RECURRENT DUMB-BELL STONE IN VESICAL BLADDER AND DIVERTICULUM

W. Calhoun Stirling, Washington, D. C. (Journal A. M. A., Feb. 13, 1926), reports what he says is the ninth case of recurrent dumb-bell stone in vesical bladder and diverticulum. The sac containing the stone was resected extravesically and both sections of the stones were removed. The part of the stone confined to the bladder was dark red and was composed of uric acid. The diverticular part of the stone was very hard, white and contained phosphatic deposits principally.

TUBERCULOSIS ASSOCIATION OF ATLANTA

The following is the program of the annual meeting of the Tuberculosis Association of Atlanta, which was held in the Chamber of Commerce, February 18, 1926:

I. Music by Health Crusaders—Samuel Inman School, Mrs. T. D. Albright, Director.

Sunset Land

May Time

The Crooked Man.

II. Reading of the Minutes of the Annual Meeting, 1925.

III. President's Report, read by Walter C Hill in the absence of President Kendall Weisiger.

IV. Auditor's Report—R. A. Magill, Chairman of Finance.

V. Medical Report and Demonstration, directed by Dr. Z. S. Cowan.

VI. Music—Harmonica Club Health Crusaders—English Avenue School, Miss Meta Scarlet, Director.

VII. Educational Report and Demonstration—Mary Dickinson.

VIII. Nomination of Directors and Officers—(1) Association—Lewis D. Sharp, Chairman Nominating Committee; (2) Colored Branch—J. A. Robinson, Chairman Nominating Committee.

President's Report

To the Friends of the Tuberculosis Association who have contributed service, or, through the Community Chest, have helped to support its work with their money, the Association submits its report for 1925:

In your hands you have a summary which shows you two departments of service which have been maintained, the Medical Service, which consists of the daily clinics, and the Nursing Service which goes into the homes of the people. The allied work of other Agencies and Laboratories gives you the picture of the work we are attempting with people who have either become afflicted with tuberculosis, have been exposed to it, or for some reason suspect that they have contracted it.

Of the people who have been examined in this Clinic, we are happy to say that in 179 instances the doctors have brought great relief to the minds of the patients that they have diagnosed as negative. During the same twelve months they have found 193 who have been diagnosed active cases. In each instance an attempt has been made to examine all who have been exposed to infection in these homes. We have in this classification over 1,000 people who are being brought up to the Clinics, weighed and studied for more accurate diagnosis. These people are known as our observation cases.

Dr. Z. S. Cowan acted as Chief of Staff through 1925, and he will presently explain the Medical figures and present as a demonstration some of the patients who have responded favorably. It is with much gratitude that you will learn of the services of these doctors who are giving as

scientific and individual care to these people as they would to their private patients.

Our nurses, both white and colored, who assist the doctors in the Clinic go into the homes and follow up instructions, give bedside care, in formation, keep records, make contracts with the Social Agencies, arrange for sanatorium care and in their way inspire and enthrust the patients, are to be highly commended for their work in this department.

Through the failure of the citizens of Atlanta to meet our needs through the Community Chest, it was necessary last July to remove from our Staff two full time nurses and one part time. In order to continue the work it was necessary for every nurse to add to her already double load. In every instance the service has been one of devotion to their work and their patients. We feel that we have taxed them beyond their strength and we know that this should not be done in this field of danger, and, we trust that our friends who appreciate the services rendered the afflicted and the protection of themselves may make it possible for our workers to be restored by increasing the Community Chest funds.

In order to meet the demands for money the interest of the patients themselves were solicited which resulted in some payment of fees which has been most helpful.

A large industrial concern in the city wished to have a Tuberculosis Survey. They took over one of our nurses for half time, under the direction of the Association, and over a period of six months a health study was made of their community. This study has just been brought to a close and the Tuberculosis Association and this firm have a piece of information which will be most valuable in working out plans on the basis of this knowledge.

The Board of Directors has been greatly concerned because of the lack of facilities at Battle Hill Sanatorium and our Committee consulted with Bond Committee of Council and Council itself and secured their pledge that \$500,000 would be included in the Bond Issue for a larger Battle Hill Sanatorium. This pledge was not kept and many heart-rending, dangerous cases are being left in boarding houses and other crowded homes, exposing people to infection. We trust that the public will join us in 1926 and make some provision for these unfortunate people.

You will presently have a demonstration of the Educational Work. For lack of money we have been without a colored worker through 1925 and the Director of the Department resigned in November and she has not been replaced for the same reason.

The Association during 1926 desires to interest the citizens in Atlanta and Fulton County in restoring the State Department of Statistics which has been eliminated because of the Supreme Court ruling which does not make it possible to pay registration fees.

In the January number of the American Review of Tuberculosis, which is published in Baltimore, Maryland, it is stated that Atlanta's death rate among the colored people is the lowest in 23 of our largest cities in the United States. These figures are not accidental. Since 1907 this Association has maintained a definite service for colored people. Since 1909 colored nurses have been employed and in 1915 this Association organized the Colored Branch which is the only one of its kind in the world. This Branch meets regularly and has within its organization outstanding leaders who are working largely from an educational and informational standpoint, with Atlanta's colored population.

The Tuberculosis Association believes in the Community Chest as a method of central financing and it would seem as impractical for Atlanta to lay aside its automobiles and go back to its horse and buggy days as it would for a city of its size to attempt to support the Social Service Program through "57 varieties" of drives. We believe the Community Chest idea and organization has come to stay and during the recent campaign our entire Board of Directors, members of our Colored Branch and two of our Staff workers rendered untiring efforts through the entire month.

To the Health, Educational and Social Agencies, we are deeply indebted for contributing to our helpfulness throughout the year. The Association has attempted to make stepping stones of its failures and while we are decidedly crippled in efficiency in the Nursing and Educational services, we have done the best we could and render to you this report trusting that you will understand that we are looking to you to help enlarge our usefulness.

Respectfully submitted,
KENDAL WEISIGER, President.

TREATMENT FOR SNAKE BITE

Treatment for a person bitten by a poisonous snake is given by Dr. Howard A. Kelly in an article on "Snakes and Snake Bite," a feature of the January number of Hygeia, popular health magazine published by the American Medical Association.

1. Above all else act promptly; time is of all things the one and most vitally important factor.
2. Keep cool and act with deliberation.
3. If a person not needed to treat the patient is available, let him get the snake and keep it for identification.
4. The bite being almost invariably on hand, arm, or leg, throw a handkerchief around the limb well above the wound, knot it, and insert a stout stick under the loop and twist until the circulation of the limb below is cut off.

5. Take a sharp knife and cut deeply in the long axis of the limb through each fang puncture. Then join the cuts by an incision from one opening to the other.

6. If permanganate of potash is at hand, make a strong dark solution and insert it into the bottom of the wound, washing it out and putting in more. Fifteen minutes after the bite it is useless to use the permanganate, the poison having diffused itself into the tissues.

7. Release the tourniquet (ligature) after twenty minutes for ten or fifteen minutes and apply it again for twenty minutes.

Why not publish the names of doctors who are delinquent in the payment of medical society dues, just as they post the names of delinquents in country clubs or social organizations? Perhaps throwing the limelight upon the shortcomings of doctors will lead them to be a little more careful about observing their obligations.—Jr. Ind. St. Med. Asso., July, 1925.

COMMUNICATIONS

To the Editor:

Today is the first anniversary of the opening of Brook Haven Manor, and the Management wishes to express its appreciation of the splendid support accorded the Institution by the Medical Profession during its first year.

As you know, the south needs institutions where patients who are afflicted with nervous or general invalidism can be placed without the stigma of being among the insane or addicts. To help fulfill a need of this kind Brook Haven Manor was originated. At first many physicians were of the opinion the institution was open for treatment of the insane or addicts, and the management during the past year, was forced to refuse numerous cases of such nature. However, we believe the medical profession is now aware of the policy of the institution to limit its scope to convalescents, nervous and general invalidism.

This letter is written as an expression of our genuine appreciation of your support in the past and contains the hope that when you have a patient in need of institutional care of this kind you will favor us.

Atlanta, Ga., Sincerely yours,
February. N. M. OWENSBY, M.D.

To the Editor:

It has been our privilege to place an advertisement in the "State Medical Journal of Georgia" and I thought you would be interested in a few statements of facts as regards our Company.

For 65 years we have operated continuously in this business and to-day there are 17 Hanger plants; nine in the United States, one in Canada and seven in England and France.

We have a capacity of approximately 1000 legs and arms per month, not counting at all our orthopedic and brace work.

Atlanta is the headquarters for nine Southeastern States and is a Georgia corporation, the stock being owned by citizens of Georgia. Under Atlanta we operate branches at Birmingham and New Orleans. At this time we are completing arrangements for a third Atlanta Branch at Jacksonville, as we find that move necessary to be in position to render beneficial service to that section.

The Hanger organization are contractors for the United States Government, the Canadian, British and French Governments; also for approximately 90 of the largest industrial organizations who recognize the superior qualities of the Hanger leg and the dependability of our company.

Carefully trained experts wearing Hanger appliances travel every section of the United States east of Kansas and in the Atlanta district are ten of these carefully trained men, spending all of their time in rendering service to our customers and prospective customers at their respective homes.

With kind regards and hoping you will call on us for any information or service we can render at any time, we are,

Yours very truly,

J. E. HANGER, Inc., OF GEORGIA.

P. M. COLEMAN, President.

Atlanta, Ga.,

February 10, 1926.

To the Editor:

You are probably aware of the fact that Bernarr Macfadden is sending "lecturers" and exhibitors over the country giving a series of lectures on physical culture before

local civic clubs. In some cases they have even persuaded the school authorities to permit the use of the public schools for this purpose.

When they attempted to do this in Richmond, Virginia, the State Health Commissioner, Dr. Ennion G. Williams, immediately got in touch with the American Medical Association and asked for such material as we had published on Macfadden so that he might put it in the hands of the officers of the civic organizations who had been approached by the Macfadden advance agents. He was sent pages from those issues of **Hygeia** that carried articles on this subject and was able with these to head off the Macfadden scheme as the Rotary, Kiwanis, Lions and other civic clubs cancelled the "lectures."

We now have the Macfadden material in reprint form, and we are enclosing one of the reprints. May we suggest that when the **Physical Culture** concern attempts to impose upon people of your state in this way that the local health officer be urged to get our reprints to put in the hands of the officials of the various clubs and other organizations through which Macfadden tries to work.

Arthur J. Cramp, M.D., Director.
Bureau of Investigation.

Use of Expressed and Boiled Human Milk

E. Thomas³ found that in ten wet nurses from nineteen to 32 years of age it was possible to maintain the breast milk by pumping the breast for two and one-half to five months after weaning their own children. In five nurses the quantity of milk diminished by about ten per cent. In one case it was only a temporary decrease in milk. In four cases there was even increased quantity of milk by pumping the breast. Contrary to the experiences in private families, it is therefore possible in an institution to maintain milk secretion even without the sucking stimulus of the child. The question whether boiled human milk is as good as unboiled has not been sufficiently studied to allow of any conclusions.

(3) Klin. Wochenschr., Oct. 1, 1923. (Abst. Med. Series.) Wm. W. Anderson.

Medical Progress

Department Editors

Anderson, W. W., Pediatrics
 Ballenger, E. G., Urology
 Bartholomew, R. A., Obstetrics
 Block, E. B., Neurology and Psychiatry
 Clay, Grady E., Ophthalmology
 Dowman, C. E., Neuro-Surgery
 Eguen, M. S., Otology, Laryngology and Rhinology
 Fitts, Jno. B., Internal Medicine
 Greene, E. H., Surgery

Hodgson, F. G., Orthopedics
 Holmes, Walter R., Gynecology and Female Urology
 Jones, Jack W., Dermatology
 Klugh, Geo. F., Clinical Pathology
 Landham, J. W., X-Ray and Radium
 Pruitt, M. C., Proctology
 Thrash, E. C., Internal Medicine
 Waits, C. E., Surgery

Infant Mortality in Relation to Breast-Feeding

Florence L. McKay² points out that the mortality rate among artificially fed infants is in all instances at least three to five times as high as among breast-fed. The mortality rates among artificially fed are also higher than those partially breast-fed. Mortality rates among the partially breast-fed are higher than among the breast-fed up to the eighth month. The longer the period of breast feeding the lower the infant mortality, and the longer the period of artificial feeding the higher the infant mortality rate. Mortality rates are higher for all causes of death among the artificially fed than among the breast-fed and much higher for gastroenteritis and respiratory diseases. A few findings indicate a lessened morbidity among breast-fed babies. The prevalence and duration of breast feeding varies from 98 per cent in the first month to 72 per cent in the ninth month, where intensive effort was made. The many reasons given for weaning indicate that in a large number of cases it was necessary.

(2) New York State Jour. Med., March 28, 1924. (Abst. Med. Series.) Wm. W. Anderson.

Breast-Milk Feeding

Catherine Chisholm⁴ states that mothers feeding infants should have a full, well-balanced diet of the amount to which they are accustomed. It should contain milk and green vegetables. They should have plenty of fresh air and sufficiency of exercise which does not fatigue, an adequate amount of sleep, and no work. The food should be given at regular intervals. The breasts should be prepared beforehand by painting

the nipple with spirits and very gently drawing it out so that the erectile tissue may be developed.

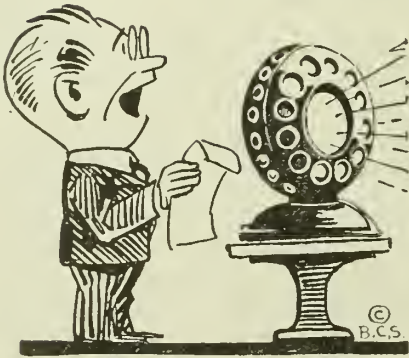
When the child is born, it should be put regularly to the breast at fairly frequent intervals both to stimulate the milk and to not be unduly tired. The intervals should be four hours the first day, then two and one-half hours until the milk is coming well. As a rule, one breast only should be given, but under certain circumstances both may be given. During the first few days both breasts may be given to stimulate secretion. It is often wise to give both breasts to weak babies and to overfed babies so that they do not empty the breast, and get a meal light in fat. Also if the milk is failing, both breasts should be given so that the full stimulus may be exerted. Massage, hot douches, and sinusoidal electricity may also be of value to assist in keeping the supply of milk. The breast-fed child is more likely to suffer from underfeeding than overfeeding. The child gets all the milk it is going to get in the first few minutes. A baby on both breasts may be nursed from six to eight minutes on the first, and from five to seven on the second. Actual weighing times observed by the author on a month old baby weighing under 9 pounds were as follows: two ounces in first two minutes; one and three-quarter ounces in second two minutes; three-quarter ounces in third two minutes; none in fourth two minutes; other breast, one and three-quarter ounces in first two minutes; three-quarter ounces in second two minutes. Total seven ounces in twelve minutes.

(4) Lancet, March 1, 1924. (Abst. Med Series.) Wm. W. Anderson.

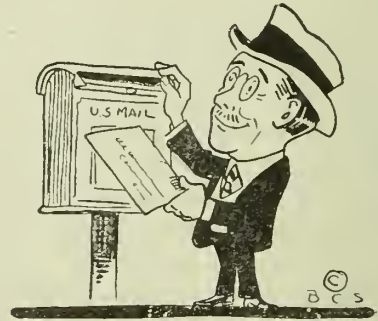
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April 19-23, 1926



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OFFICIAL CALL

To the Officers, Fellows and Members of the American Medical Association

The seventy-seventh annual session of the American Medical Association will be held in Dallas, Texas, from Monday, April the nineteenth to Friday, April the twenty-third, Nineteen hundred and twenty-six.

The House of Delegates will convene on Monday, April the nineteenth.

The Scientific Assembly of the Association will open with the General Meeting held on Tuesday, April the twentieth, at 8:30 P. M.

The various sections of the Scientific As-

sembly will meet Wednesday, April the twenty-first, at 9 A. M. and at 2 P. M. and subsequently according to their respective programs.

WILLIAM D. HAGGARD, Pres.

FREDERICK C. WARNSHUIS,

Speaker, House of Delegates.

Attest:

Olin West, Secretary

Chicago, Ill., February the eighteenth.

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THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

DEVOTED TO THE WELFARE OF THE MEDICAL PROFESSION OF GEORGIA
PUBLISHED MONTHLY under direction of the Council

Volume XV

Atlanta, Ga., April, 1926

No. 4

Original Articles

HEXYLRESORCINOL IN BACILLUS PROTEUS PYELITIS* WITH REPORT OF CASE

W. E. McCurry, M.D.,
Hartwell

Modern developments in urologic technique have rendered the entire urinary tract accessible to accurate study, and all of its mucosa, to topical therapeutics. Definite knowledge is now readily obtainable of exact conditions which, only a few years ago, were not susceptible to diagnosis with the facilities then existing; and brilliant results have been achieved by direct local treatment of lesions heretofore inaccessible.

In the management of the infectious processes, opinion is divided as to whether germicidal applications owe their beneficial results to antiseptics per se, or to local tissue reaction to irritants. Certainly local antiseptics is inherently limited by the time element, it being impracticable to maintain bactericidal agents in contact with pathologic areas for a sufficient length of time to free the host of bacteria embedded in the deeper layers of the mucosa; and even in conditions curable by local measures, the treatment is painful, tedious, and expensive. The requisite accuracy and delicacy of some of the manipulations involved can be acquired only by prolonged study and practice, so that so few possess them that they are, for many patients, unavailable. There is need then for some more simply administered agent by means of which these inflammatory processes may be attacked.

Heretofore, aside from local measures, there have been three avenues of approach to

the problem, all of uncertain efficacy, as follows:

1. The induction of such change in its hydrogen ion concentration as to make the urine an unfavorable culture medium for the growth of the particular organism involved.

2. The stimulation of the immunological processes of the host so as to increase his powers of defense against infection.

3. The administration of drugs which, eliminated by the kidneys, render the urine antiseptic.

By the utilization of the first and second of these principles some results have been obtained but their sphere of usefulness is limited; it is with the third that we are primarily concerned in this paper.

Of the many who have been diligently seeking a chemotherapeutic agent capable of including the secretion of bactericidal urine the workers in Hugh Young's Clinic at Johns Hopkins have been particularly active. Davis, White, and others (1) have formulated certain criteria which the ideal urinary antiseptic must possess, viz:

1. It should be chemically stable.
2. It should be non-toxic.
3. It should be non-irritating to the urinary tract.
4. It should exert an antiseptic action in high dilution in urine of any reaction.
5. It should be eliminated in high percentage by the kidneys.

Hexamethylenamin has probably been the

*Read before the Medical Association of Georgia, May 14, 1925.

most promising and widely used drug in urinary infections yet it fails to meet completely any one of these qualifications. It is particularly deficient in that it is inert in alkaline urine, and in that the liberated formaldehyde upon which its efficacy depends is in many cases too irritating to the urinary tract to allow of adequate dosage.

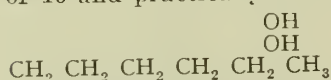
Recently Veader Leonard (2) has synthesized a phenolic derivative which apparently more nearly fulfils the requirements mentioned than any drug heretofore described. On account of the fact, however, that the larger proportions of this substance is eliminated by the kidneys as a conjugate and only the smaller fraction excreted unchanged he proposes a modification of the fifth qualification of Davis; and also the addition of a sixth the reason for which is obvious:

5. It should be eliminated in the urine in sufficient concentration to exert a local antiseptic action and at a rate by which continuous antiseptic action may be attained.

6. It should be administrable by mouth.

Resorcinol, $C_6H_4(OH)_2$, possesses definite though moderate antiseptic power, having a phenol coefficient of 0.3, and is eliminated by the kidneys. In 1913 Johnson and Hodge (3) synthesized several alkyl derivatives of resorcinol, viz; methyl, ethyl, n-propyl, and n-butyl of the same general formula, in which two hydroxylous and an alkyl chain are substituted in the benzene ring, the alkyl group being para to one hydroxyl group and ortho to the other.

Rettger (2) demonstrated a progressive increase in antiseptic power with the addition of each higher alkyl radical. In 1914 Leonard (2) found that this increase in bactericidal power was accompanied by a proportionate decrease in toxicity. With these observations as a basis he went on to synthesize other higher alkyl resorcinols until he obtained in n-hexylresorcinol, $C_6H_3(OH)_2C_6H_{13}$, a compound with a phenol coefficient of 46 and practically non-toxic.



Further development seemed less promising since the coefficient of the next higher, n-heptylresorcinol, showed a sharp drop to 30.

Basing his conclusions on extensive experimentation on rabbits, normal men, and patients suffering from various urinary infections, Leonard (2) believes hexylresorcinol to be the most powerful non-toxic organic germicide yet described; to be eliminable in the urine in sufficient concentration to render the urine actively bactericidal; and to fulfill all the proposed qualifications of the ideal urinary antiseptic in that it is chemically stable, non-toxic in doses much larger than needed to induce the secretion of bactericidal urine, non-irritating to the urinary tract even after prolonged administration, antiseptic in urine of high dilution of any reaction, eliminable in the urine in sufficient concentration to exert a local antiseptic action and at a rate by which continuous antiseptic action may be attained, and administrable by mouth. It even exceeds the proposed criteria in that the urine secreted after its administration is not only antiseptic but actively bactericidal.

As was to be expected, however, in tests of the bactericidal properties of the drug, different bacteria were found to vary in susceptibility to its action, it requiring much more concentrated solutions to destroy bacillus coli than staphylococcus albus. In treating patients with urinary infections he found that in general it was much easier to sterilize those due to gram positive cocci than those of the colon group. In fact he doubts the ability of the drug to sterilize massive bacillus coli infections until the number of the organisms is reduced by other measures. The proteus group of organism is somewhat closely allied to the colon group in morphology, staining and cultural characteristics, and pathogenicity. It is rather unusual for the bacillus proteus to be found alone as a pathogenic agent, it being usually associated with other bacteria. While not particularly uncommon as a cause of cystitis it is rarely found in pyelitis. Dr. Leonard (4) states that he has not had the opportunity to use hexylresorcinol in proteus infection of the urinary tract. For these reasons the following case is reported here, it being, so far as I have been able to learn, the first case of this type of infection to be treated by this drug.

Report of Case

A married white woman, age 32, housewife, came for treatment Nov. 4, 1924, complaining of pain at costovertebral angle and in the hypogastrium, urgency and frequency of urination, dysuria, polyuria, and hematuria.

The family history was negative except that the father, living, age 65, had "kidney trouble", and one brother and one son had had diabetes. Upon examination however, this son, though on an unrestricted diet, was found to be free of urinary sugar or symptoms.

July 20, 1924, on account of some local irritation and odor, a sessile pigmented naevus 2 cm. in diameter was removed by fulguration by Dr. Cosby Swanson, nine other smaller naevi being treated at the same sitting. There was considerable supuration in the resulting wounds, which had healed, however, on Aug. 10, 1924. The past history was otherwise unimportant.

About September 1, 1924, she began to have pain at the left costovertebral angle. About October 15, she developed pain in the lower abdomen, urgency and frequency of urination, dysuria, and polyuria. November 1, 1924, macroscopic blood appeared in the urine for which she consulted me three days later.

Constitutional symptoms were insignificant and examination was negative except for a few acne lesions on the face, tenderness, moderate at the left costovertebral angle, more marked over the hypogastrium, and a questionable thickening and induration of the bladder walls as palpated through the vagina. The kidneys were not palpable, and the uterus, adnexae, and urethra were free of evidence of pathology. Search was made for possible foci of infection, but none could be found other than the few acne lesions, and the wounds following fulguration which had healed completely prior to the development of symptoms.

Urine: cloudy; acid; Sp. Gr. 1023; albumen one plus; blood and pus cells in enormous numbers.

Cystoscopic examination, November 6, by Dr. Gideon Timberlake revealed a definite erosive trigonitis. Under treatment by alkalies and daily instillations of 1% mercurochrome solution, the urgency and frequency of urination and dysuria had subsided by December 2, 1924, and no blood cells could be found in the urine, but pain at the left costovertebral angle and in the left loin persisted, and the urine remained cloudy and contained many pus cells.

Further urological study by Dr. Timberlake, December 9, 1924, showed the trigonitis healed, but by ureteral catheterization bacillus proteus was obtained in pure culture from both kidneys. The renal pelvis were lavaged with mercurochrome solution. X-ray study at this time showed no stones or other evidence of pathology.

Acid sodium phosphate and hexamethylenamin were administered from December 22, 1924, to

January 28, 1925, in dosage ranging from 0.5 gm. three times a day to 1.0 gm. every four hours but the pyuria continued. Methylene blue was given in doses of two grains three times a day from January 28 to February 15, 1925, with no improvement.

On February 20, 1925, the urine contained numerous pus cells, and from it bacillus proteus was again obtained in pure culture. On this date, immediately after securing urine for culture, treatment by oral administration of hexylresorcinol in doses of 0.3 gm. three times a day was instituted, all other measures being discontinued. On February 24 another specimen of urine was secured for culture, and no catharsis having resulted from the drug the dose was increased to 0.45 gm. three times a day. This culture was reported by the laboratory to be sterile. Hexylresorcinol was continued in 0.45 gm. doses for eight days, a total of twelve days of treatment. Further cultures March 9, and April 25, 1925, were sterile, the urine at the last examination being chemically and microscopically negative.

Summary

A case of pyelitis due to the bacillus proteus was treated persistently over a period of three and a half months by the methods in ordinary use, including bladder instillations, pelvic lavage, hexamethylenamin, alkalization, and methylene blue, with only partial temporary relief. After four days of treatment by hexylresorcinol the urine was sterile. Hexylresorcinol was continued for a total of twelve days and the urine has remained sterile.

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Davis, E. G.: Am. Jour. Med. Sc., CLXI, 251, 1921.
- (2) Leonard, Veader: Jour. A. M. A., LXXXIII, 2005, 1924.
Leonard, Veader: Jour. Urol., XII, 585, 1924.
- (3) Johnson and Hodge: Jour. Am. Chem. Soc., XXXV, Aug. 1913.
- (4) Leonard, Veader: Personal communication.

ALBANY

Extends a hearty welcome to you.

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TREATMENT OF PYELITIS*

Walter R. Holmes, M. D.

Atlanta

This paper is based on an analysis of 75 cases of upper urinary tract infections. It is presented without any idea of bringing before you any new facts, but in the hope that a review of these cases may be of interest and serve to bring to your attention certain problems in the diagnosis and treatment of infections of the upper urinary tract.

Pyelitis is a disease of general medical interest. It enters into the diagnostic problems of the internist, the surgeon, the pediatrician and the obstetrician. Because of this common interest and the real prevalence of the disease it is a subject which at all times deserves due consideration at the hands of the medical profession.

In any discussion on the treatment of pyelitis it is well to keep in mind the well known fact that pyelitis is in many instances a self limited disease. The symptoms and physical findings of the disease may disappear almost as rapidly as they appeared. For this reason the results of any form of treatment must be carefully considered before drawing conclusions as to the specific value of the therapeutic measures used in any particular case.

Acute Pyelitis

The treatment of pyelitis in the acute stage is for the most part standardized and generally accepted by the profession, namely:

1. Complete rest in bed.
2. Large quantities of fluids by mouth. (If no contraindication due to cardiac insufficiency to drink from 4,000 to 5,000 c.c. of fluids per day,) Where vomiting exists to get fluids into the patient by means of infusions of proctoclysis.
3. Care of the intestinal tract with proper elimination.
4. A posture in bed which will best promote drainage from the diseased kidney.
5. Bland non-irritating diet.
6. The use of large hot moist compresses over the region of the affected kidney for the relief of pain.

7. Internal medication.

It is in this, the form of internal medication to be used that we find the greatest diversity of opinion. The drug generally used is hexamethylenamin, given in large doses 40-50 grains a day with or without sod. acid phosphate depending on the reaction of the urine. On the theory of inhibition of the growth of bacteria by changing the reaction of the urine, the common practice in this form of therapy is to discontinue the hexamethylenamin after one week.

Starting the patients on alkalis, usually sod. bicarb., is given one teaspoonful in a full glass of water three or four times a day.

If sodium bicarbonate cannot be tolerated, one may resort to potassium citrate or acetate. At the end of a week the alkalis are discontinued and the patient put back on hexamethylenamin. More recently neutral acriflavine and mercurochrome have come into popular favor. In spite of the fact that favorable reports have been published on their use, I am opposed to the intravenous use of these drugs in the treatment of pyelitis. Meleney and Zau (J. A. M. A. Jan 31, 25) in a recent paper in the Journal of the American Medical Association have shown that profound degenerative changes occur in the convoluted tubules of the kidneys with the presence regularly of albumin and granular casts in the urine after the intravenous injection of neutral acriflavine. Complete suppression of urine frequently takes place after injection of large doses. It is not an uncommon clinical observation after the intravenous injections of mercurochrome for patients to develop distressing nausea, vomiting and diarrhea with casts and slight amounts of albumin in the urine. If this is true, it hardly seems rational to employ in the treatment of a rarely fatal disease a therapeutic measure which may injure an already badly handicapped organ or perhaps permanently damage a very necessary and vital organ of the body in our effort to effect a cure.

The latest addition to our drug armamentarium is Hexylresorcinol. This new drug has been used in experimental studies by Dr.

*Read before the Medical Association of Georgia, May 14, 1925.

Veader Leonard working in the Department of Bacteriology of the School of Hygiene and Public Health of the Johns Hopkins University. Dr. Leonard states that Hexylresorcinol is the most powerful organic germicide ever described with a phenol coefficient of 52. He states that the drug is non-toxic and non-irritating to the kidneys even when taken in large doses. The drug was used in human experiments giving large doses and over a long period of time without toxic effect or evidence in daily urine examinations of albumin, pus, or casts. Leonard states that the first few doses may show some earthartie action. On doses of from 0.25 to 0.5 gm. three times a day in 54% of the cases normal men secreted urine which kills *B. coli* and *staphylococcus albus*. By this is meant that after taking the drug the urine from such individuals when added to cultures of these organisms entirely inhibit their growth. The drug is put up in olive oil solution in enteric coated capsules. The drug is taken by mouth after a full meal. The dosage is from one to two capsules containing 0.15 gm three times a day. Although hexylresorcinol is secreted promptly in the urine, the bulk of each dose appears in the urine as a conjugate in an inert form. In Leonard's report on the clinical application of the drug in cases of urinary infection he states that urinary infections due to *staphylococcus albus*, *staphylococcus aureus* and *streptococcus anhemolyticus* have been promptly cleared up by taking the drug by mouth without any other form of treatment. When the bacterial count is not high in urinary infections due to *B. coli* cases have cleared up by taking the drug by mouth. Leonard states, however, that heavy infection of the urinary tract with *B. coli* cannot be cleared up without a temporary reduction in the number of the organisms by some other means of local treatment. It is unfortunate that the drug seems to act least favorably against *B. coli* because this is the offending organism in the majority of cases of urinary tract infection.

Dr. Leonard kindly supplied me with a quantity of the drug for experimental use. I have used the drug in a number of cases. I have not observed any toxic effects in the cases in which the drug has been used. Care-

ful examination of the urine following its use has not shown any kidney irritation as evidenced by the presence of albumin or casts. In several cases I have noticed marked improvement following its use. Two cases of cystitis with marked dysuria and bladder tenesmus were entirely relieved of all bladder symptoms after taking the drug for ten days. It will take a large series of cases with careful clinical observations before the real value of the drug can be determined. From my short experience with the drug, it is my opinion that hexylresorcinol is a drug of value and that it will prove to be the best urinary antiseptic so far developed.

Chronic Pyelitis

Under medical treatment as outlined above most cases of acute pyelitis will symptomatically soon clear up. The acute pains are relieved, the chills stop, the fever subsides, and the patients resume their normal activities. It has been my experience that although these patients have apparently made a complete recovery careful examination of the urine will show the presence of pus and bacteria weeks and months after the initial acute attack. It is a duty which the physician owes these patients to keep them under close observation with repeated examinations of the urine before dismissing them as cured. Many of these patients will have recurring attacks of pyelitis at intervals of weeks or months. If they do not again have an acute attack but still harbor their infection, these patients do not regain their former good health. Many of them will complain of some bladder distress, usually an increased frequency or burning or urination; or perhaps a dull ache or soreness over the region of the kidneys or pain in one or the other of the lower abdominal quadrants—symptoms which may lead to a mistaken diagnosis of chronic appendicitis or disease of the pelvic organs. Pus cells are not a normal constituent of a catheterized specimen of urine. And when pus is found repeatedly in the urine in spite of medical treatment these cases deserve an investigation to determine the source and underlying cause of the pyuria.

What can be done for these cases of chronic infection of the urinary tract? By care-

ful cystoscopic examination one may determine the source of the pyuria, the type of infection, and by pyelography and differential phthalein tests fairly accurately determine the degree of pathology in the upper urinary tract. After such a study a rational form of treatment may be carried out.

In analyzing the 75 cases of infection of the upper urinary tract in this series, it was found that 7 cases were complicated by stones either in the kidneys or ureters. In two of these cases with large stones impacted in the lower end of the ureter the stones were removed by incisions in the ureter by the vaginal route. The surgeon should not dismiss as cured patients from whom stones have been removed from the kidneys or ureters as soon as they have recovered from the operation. These cases should be treated by dilatation of the ureter to promote drainage and infections if present cleared up to prevent the subsequent formation of stones.

The infecting organism in the majority of cases in this series, where cultures were made, was found to be *B. coli*. In three of the cases the infection was tubercular. In all three cases the right kidney was the seat of the tubercular process. These cases were treated by nephrectomy. One of these cases was of particular interest from the standpoint of diagnosis.

A white woman, widow, aged 29. Complaint: Attacks of acute pains over right kidney region radiating to right groin and down right leg. Duration of symptoms three years. Cystoscopic Exam: Showed normal bladder. Slight redness around the right ureteral orifice. Pus and few blood cells in the urine. The pus was found coming from the right kidney. Differential phthalein showed impairment of function of right kidney. Pelvis of right kidney held 27 c.c. There was a dense stricture at the lower end of the ureter. Guinea pig inoculations were negative for tuberculosis. Repeated stains were negative for tuberculosis. A pyelogram gave the clue to the correct diagnosis as it showed an obliteration of the lower calices which at operation was found to be due to a large abscess involving the lower pole of the kidney.

In one case of pyelitis in this series the gonococcus was the offending organism. Cul-

tures were made and the organism identified by Dr. Khugh. The infection was in the left kidney and required 12 catheterizations of the left ureter and irrigations of the pelvis of the kidney before the infection was eradicated.

In four cases of this series the pyelitis was a complication of pregnancy. Two of these cases were successfully treated and the patients went to term. One of these patients, six months pregnant, was suffering intense pain with a retention in the right kidney of 32 c.c. The kidney was drained with catheter and the pelvis irrigated. After four treatments this patient went to term and was delivered of a normal baby. In my opinion the majority of these cases of pyelitis complicating pregnancy which do not respond to medical treatment can be successfully treated by catheter drainage and the pregnancy carried to term, provided the treatment is instituted before the patients are exhausted by pain and toxæmia.

Six cases of this series, the differential phthalein size of the kidney pelvis, degree of pyuria indicated damage to the kidney parenchyma, pyonephroses, pyelonephritis. In three of these cases where the infection was bilateral and in one in which operation was out of the question because of the general condition of the patient, passing of wax bulb catheter with dilatation of the ureter and pelvic lavage, altho the infection persisted, gave great relief from symptoms, clearing up the chills and fever, with marked improvement in the general condition of the patient. No one would advocate trying to save a pus kidney in which the kidney parenchyma has been destroyed by the infection. However, in many cases of large infected hydronephroses, the kidney can be saved by such conservative measures as suggested above.

The remaining cases in this series (59) fall into the group of chronic pyelitis without evident damage to the kidney parenchyma. The majority of these cases were referred because of pus in the urine and symptoms persisting after prolonged medical treatment. These cases were treated by catheterization of the ureter on the involved side with dilatation of the ureter by means of wax bulbs (3 to 4½ mm.) placed on the

ureteral catheters and pelvic lavage using silver nitrate solution in strengths of 1,1,000 to 1,100. Dr. Hunter has made a notable contribution to urology in calling our attention to the importance of ureteral strictures in these conditions. He has pointed out that obstruction in some part of the ureter plays an all important role in keeping up these infections of the upper urinary tract, and that dilatation of the ureter with establishment of good drainage from the kidney is the most important step in the treatment. Catheterization of the ureter can no longer be looked upon as a major procedure. Careful instrumentation to prevent trauma, a well lubricated catheter, and where pelvic lavage is done, a solution warmed to body temperature with due care not to over-distend the kidney pelvis, one will find few reactions following the treatments. In this entire series there were only two cases which showed marked reaction after ureteral catheterization. These were both cases with active infection and the reactions cleared up in a few days without serious results. The end results in this group of cases justifies the pain and discomfort which may occur incident to the treatments. In 66% of the cases of this group it was possible by treatments as outlined to free the urine of pus and bacteria. It is very striking to see the marked improvement in the general condition of these patients who are relieved of their infection. It is interesting to note that four patients of this group had had during previous pregnancies attacks of acute pyelitis which necessitated termination of the pregnancy. Two of these patients who were treated and freed of their infection subsequently passed through normal pregnancies without any return of their pyelitis.

In addition to the local treatment of the ureter and pelvis of the kidney, careful search should be made for foci of infection in other parts of the body, namely the teeth, sinuses tonsils, gastro-intestinal tract, rectal fissures, infected hemorrhoids, pelvic pathology, etc., and these foci eradicated as part of general treatment of these cases.

Discussion on Papers of Dr. McCurry and Dr. Holmes

Dr. Thomas R. Gaines, Hartwell, Ga.:

About the time Dr. Leonard's paper came out I had a patient with a positive culture for the colon bacillus. This patient had been having autogenous vaccine but she was still running a temperature, with pain in the back and other symptoms of pyelitis. She returned to Atlanta and we had some autogenous vaccine prepared and gave more but she was not any better. I then put her on hexylresorcinol, starting with two capsules three times a day, each containing 25/100 gram. I increased this to four capsules three times a day until she took 100 capsules. She improved somewhat but a consultant advised removal of the tonsils. She was feeling fine and when I saw her last Saturday she said she had not had any temperature in two weeks. I have not had a culture since the tonsils were removed and do not know whether the improvement was due to the hexylresorcinol or the removal of the tonsils.

One thing about the use of soda with the hexylresorcinol, I think Dr. Leonard claims that if soda is given with the hexylresorcinol it inhibits the therapeutic effect.

Dr. C. H. Richardson, Jr., Macon, Ga.:

There was one question brought out by Dr. Holmes, and that is the intravenous injection of the antiseptics. I think a note of warning is necessary. It is not well to do this unless there is some very definite indication. When these things result in benefit it is probably due to the injection of the foreign protein into the blood stream. I do not think anyone believes that we can sterilize the blood stream by injecting a few cubic centimeters of 1 per cent mereurochrome-220 soluble, aeroflavin, or anything else. We can get the same thing by injecting milk and can get the reaction that tends to bring about an acute reaction. In the pyelitis of pregnancy I think the method mentioned yesterday by Dr. Anderson of treating pyelitis in children will be valuable. That is, the irrigation of the bladder with silver nitrate. These women practically always have residual urine and it is entirely possible that in the base of the bladder lies the focus of infection. By properly emptying the bladder by catheterization and irrigating with silver nitrate we may get rid of the infection.

Dr. W. E. McCurry, Hartwell, Ga., (closing): Since the title of the paper was sent in the drug has been put on the market by Sharp & Dohme under the name Caprokol. The experimental work was carried out under the direction of Dr. Veader Leonard,

ON TO ALBANY

acting for the National Church Council and I am indebted to him for the supply of the drug used in treatment of this case.

One point in regard to pyelitis in general: that is the importance in every case of seeking out foci of infection. In some instances it is associated with pregnancy but even there we should search for foci of infection.

I have been able to isolate the same organism in a suspected focus that I have found in the urine, and I believe if careful study is made along that line we will be able to reach a more definite decision as to whether these infections are hematogenous or are spread by direct extension to the ureter.

SURGERY OF INGUINAL HERNIA*

W. F. Westmoreland, M.D.

Atlanta

This paper is the imprint of my personal recollections, and it is not discursive of the history, anatomy or surgical theories of Inguinal Hernia.

In writing this paper I have taken as my precept, that of a well dressed woman in selecting her skirt,—have it long enough to cover the subject, but short enough to be interesting.

Though the genius of surgery from time immemorial was directed toward a radical cure for hernia and each surgeon had his fling, it was not until the Halstead and Bassini operations reported in 1889 made it an accomplished fact.

Each of these men, from Poupart, an anatomist named Poupart ligament, in the 16th and Gimbernat's discovery of its reflected tendon in the 17th century, seemed to have a morbid flare to name after himself each split fascia, reflected tendon or extended ligament to the complexity of the anatomy of each region and the confusion and dread of the future student.

A moment's digression. There are over five thousand anatomical names. A few years ago the B. N. A. met to unify and make simpler anatomical terms. Since this meeting each anatomical name has in the anatomies from one to three synonyms, five thousand to fifteen thousand terms and a question of doubt as to which one to use. Our speaking language for business and social intercourse is about two thousand words, and here is one branch of medicine with over five times as many,—some burden.

At the time I began to study hernia in the late eighties, there were 153 operations, some of them as obscure as a Chinese puzzle and as impossible to understand, in which

the author floundered around as if he had fly-paper on his mental feet.

The need for such an operation was shown by the popularity of the MacEwen method of 1887, in which he used the hernial sac to fill up the inguinal canal and block the deeper ring. I watched about thirty of these operations, but as relapse was prompt and complete, the operation was soon abandoned.

The McBurney followed; this was an incision down to the ring over the hernia and inguinal canal. The wound was left open to fill with granulations in hopes that the cicatrix would hold back the hernia.

This operation was more quickly dropped.

What a surgical pity that the McBurney appendiceal incision, an illogical but popular one, was not dropped as quickly for I consider it has done more harm in abdominal surgery by obscuring the pathology and by limiting the field of operation than any innovation.

Next came the Halstead and Bassini, both of which gave radical cures.

The principle of these operations is used in all operations of today, with the Bassini the popular one, though the modification in the method of applying them is frequent.

This brings us to the two important questions,—what allows a hernia to occur and what is necessary to relieve it?

The percentage in the male is about five per cent, less in the female.

Since we have had an operation that cures I have always considered hernia a surgical condition and an operation as the relief. I never apply a truss or reduce a strangulation by taxis.

When the locomotive of a man was on four feet the natural openings in the abdominal wall were in a position that neither intra-

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abdominal pressure nor gravity forced the contents of the abdomen against them.

In the evolution of man in which he assumes the erect position the force of intra-abdominal pressure and gravity were reversed and both actions forced the abdominal contents against these openings.

In the large majority of cases this is provided for—but in five per cent of them it is an embryological anatomical deficiency in and around these openings, making it impossible to resist the pressure and hernia occurs.

I consider a hernia due to the erect position, including all forms of intra-abdominal pressure and gravity, plus the embryological deficiencies in the abdominal wall and peritoneum.

I am not wedded to any one theory of which there is much literature, each author advocating and advancing his own.

I am convinced of the embryological anatomical deficiencies of a complex nature in which the peritoneum and abdominal wall, usually both, play a part. When they are present hernia occurs and when they are absent hernia can only result from a trauma.

What are these deficiencies and how are they best repaired? Our operation is purely one of reconstruction.

In hernia I call the muscle a shock absorber, for unless it is reinforced by fascia on both sides or at least on the inner side, it in no way affords resistance to hernia.

There are several marked deficiencies. The principal ones are: imperfect closure of the internal ring, which is common and non-closure of the funicular process is frequent, about 20 to 25 per cent in the adult who has never had hernia, as shown by dissection of the adult subjects. Where this occurs the infundibular process is more pronounced and the funnel shaped opening in the peritoneal cavity is well developed.

But the large percentage of no hernias in these cases shows that something else is necessary.

Two main structures that resist the formation of hernia are the internal oblique muscle and the external oblique muscle with its aponeurosis.

In the cases I have operated, the internal

ring is not protected by the internal oblique muscle.

This muscle instead of coming off from Poupart's ligament low down, so as to protect the ring is sometimes entirely deficient at Poupart's ligament.

This deficiency is repaired by stitching the internal oblique back to Poupart's ligament as low as possible, at least two-thirds the way down.

The pillars of the aponeurosis of the external oblique are frequently lax, and are inserted in the pubis, not together with decussating fibres, but with an appreciable space between them—in these cases the whole inguinal canal is lax and patulous.

Associated with these cases is frequently a deficiency and a laxity of the conjoined tendon.

These conditions are an important predisposing factor to hernia.

My experience has shown me that in practically all hernia, the majority of these factors are present. Sometimes one factor is predominative, again another.

Shortly after Dr. Halstead reported his operation, I went to see him operate—and saw several.

In conversation the doctor told me that he feared the lack of blood supply in this region and the tension. At this time he used silver wire, and a plaster splint was put on to control any motion.

The plaster of Paris splint was also used by Bassini.

For a short time I made the Halstead operation, but to my mind there was much that was illogical, the plaster splint, resecting the veins of the cord did not appeal to me. I think that the trouble with the testicle in this operation was due to trying to make the cord and its membrane smaller for transplanting through a small opening.

Some of these cases had trophy of the testicle and other troubles.

Thinking the matter over I decided to close the hernial opening as I would any other abdominal incision, using simplicity and small silk instead of silver wire. The decision as regards silk instead of catgut or kangaroo tendon was based upon the idea that it takes six weeks for firm fascial union

and that these materials did not hold sufficiently long. I never tried to dissect out the sac if it went into the scrotum, it was simply cut off and whipped over to close the scrotal part, to prevent blood or oozing getting into it.

The cord was lifted out, transplanted in mass, no manipulation and no trying to clean it up, and make it smaller. Sometimes the cord mass looked unreasonably large so that occasionally I had doubt as to the success of the operation, but I never saw any trouble. Those early cases were such as we never see now, usually old, with a few that had Heaton injections. There was a mass of brawny adhesions. The cord was transplanted an inch above the internal intestinal ring. This gave it a slant outwards and upwards as the intra-abdominal pressure rolls downwards and inwards. This pressure makes the grip of the abdominal wall tighten over the cord. In other words, manipulation of the cord was the slightest consistent with its transplantation.

In operating I split the skin from an inch above the internal ring to near the pubis. The incision is carried down to the aponeurosis of the external oblique. A finger is pushed up through the external ring, separating the external oblique from the cord to the internal ring; using scissors, the external oblique is split to an inch above the internal ring.

If the internal oblique and the transversus are in sight they are also split to the same point.

The internal ring and the hernial sac are identified and all redundant tissue is dissected away and the sac and cord are separated from the margin of the ring.

The sac is now dealt with. I use a circular stitch around the sac from the inner side, going in from the outer side, leaving the thread long enough to tie, and when the stitch is finished bringing the thread out, tying the sac from the outer side. If the sac is freed from the margin of the ring and from the abdominal wall and gently pulled out from the abdomen, it will do away with any puckering and the peritoneum will be flat and even. All redundant tissue is resected.

As I have mentioned, unless the sac is very short it is not dissected away from the cord but cut off and closed. For this work of separating the sac and cord dry dissecting with a piece of dry gauze over the finger is easier and gives the best result. I never use knife or scissors except to cut through dense bands.

When the cord is separated it is lifted out of the wound and fastened out of the way by a piece of gauze.

The muscles are brought together by mattress sutures so placed at an angle that a bunch of longitudinal fibres are caught in the loop of the suture—this prevents the suture cutting through.

The sutures are alternated, beginning first on one side, then on the other. This makes the tension even.

Two sutures are placed above the cord. The sutures over the pubis are carried down and into and through the periosteum. This insures an anchoring closure of the pillars and is important.

The cord is transplanted an inch to the outer and upper edge of the internal ring. The sutures on either side of the cord simply make the muscles embrace the cord without pressure. This can be regulated by putting the finger down by the cord as the sutures are tied.

The sutures are passed so as to leave a half inch of the aponeurosis on each side of the incision. On the lower side, the needle passes through Poupart's ligament. When the mattress sutures are tied bring all the muscles together—this makes the external oblique aponeurosis put up between them.

The aponeurosis is then closed by a small sized thread, the sutures are interrupted. The skin is then closed by interrupted sutures. No drainage is used unless the patient is fat, then gauze drainage is used. The interrupted sutures allow drainage.

The relapse in these operations for radical cure is from five to ten per cent. So far, in over five hundred operations in the last 33 years at the Grady and College clinics, the Federal Prison and private patients, I have never had a relapse that I know of. I thought I had one, but when the patient was opened up I found that the hernia had come

through the loose striations in the aponeurosis about an inch above the internal ring.

No Mortality

I have had three infections, one in a patient who developed typhoid fever the second day after operation and silver wire was used in this patient, which inhibited a deep infection. It was only superficial where the silk was used. The silk had to be removed, the silver wire prevented a relapse of the hernia.

The other two occurred on the same day, opening college clinic and were traced to student assistants, who had not prepared their hands properly.

Patients were drained and the sutures were left for quite a while, then removed. There was no hernial relapse.

The sutures were left for their support of the tissues and not that the silk infection would be cured. I have never seen a case where infected silk did not have to be removed.

At this time we were using plain sterile silk.

Since then I have used a plain twisted antiseptic silk.

The percentage of relapses—five to ten per cent—I think is due to the use of catgut. The catgut gives away too early, or I think a certain proportion of patients from some individual peculiarity, absorb it too quickly. I have made the third operation on nine patients, in each case the same operator had made two operations using catgut. Some of these surgeons I know and am familiar with their technique, and I am sure the catgut and the patient's early absorption were at fault. There was no trouble when silk was used at the third operation.

DISCUSSION ON PAPER OF DR. W. F. WESTMORELAND

Dr. G. Y. Massenburg, Macon, Ga.: I cannot add anything to Dr. Westmoreland's paper, a few things about operations for hernia have impressed me. One very important thing is a clean section and thorough hemostasis, another is a very tight dressing to prevent any possible oozing.

I think the suture materials used depend very much on where one has been trained. I cannot say that there is very much difference in the results. I have had two hernias

to recur, in one there was infection, in the other I do not know the cause.

Dr. Lewis S. Hardin, Atlanta, Ga.: Dr. Westmoreland has brought out several essential points in the repair of hernia. What do we do a herniotomy for? To cure our patient. The embryological factor should take into consideration the animals on four legs, where the intestines lie against the anterior abdominal wall. In assuming the upright position the pressure falls not at the internal ring but in the position of the direct inguinal hernia at the lower portion of the pelvis.

Asepsis is one of the main factors in the results of the herniotomy because primary union is essential. Attempts to repair secondarily reach as high as 50 per cent failures. Beginning with the cord as the sac was something new and quite instructive to me. Also, the displacement of the internal ring, or the sac which displaces the internal ring upward and out takes the pressure off of the internal ring in the pelvic pressure. The same thing takes place in displacements of the uterus. If a woman would walk on all fours or stand on the head the uterus would drop back into normal position without any pressure, just as we take the tension off of the internal ring. This being a fact, the idea of bringing the conjoined tendon between the aponeurosis and the symphysis is important because the recurrent hernia takes place at this point if this is neglected.

One point Dr. Westmoreland did not reach is, how long shall these patients stay in bed and how long does the operation take? Some men say they get good results in the operation in twenty minutes. If the tissues are put back without any tension it cannot be done in that time. If they are not it probably can be done in ten minutes. I keep all my patients in bed for ten days and would like to keep them there for six weeks. The muscles knit together but the fascia of the aponeurosis takes five weeks to become solid. Also, the mattress stitch that we use in tacking the internal ring transversely is good and in the attaching of the aponeurosis we take a stitch across the fibers of the muscles or the aponeurosis. They will not cut out.

Dr. A. J. Mooney, Statesboro, Ga.: I wish to add my appreciation and to say that every paper given us by this Nestor of surgery in Georgia, whatever the subject may be, is always an inspiration. With a recurrence of 5 to 10 per cent in the average series of hernia operations his series is very illuminating, and there must be a cause for the recurrences. In my limited experience, with not nearly the number of cases Dr. Westmoreland has, my observation has been that

if we have a good conjoined tendon to suture, and if we remove the sac we will cure the hernia. If the abdomen is the so-called three-wall abdomen with an arch at three different points, we know we probably have no conjoined tendon to suture to and I think that is where we get our recurrences of 10 to 15 per cent.

I believe hernias are a fetal question. It resolves itself into the same question of hydrocele, it is a congenital affair. It is true that we do sometimes have traumatic hernia, but I believe they are practically all congenital affairs, and that if there is a good conjoined tendon to suture to the hernia can be cured.

Dr. W. F. Westmoreland, Atlanta, Ga., (closing): You must remember that our ideas of a practice are obtained from the dead subject. If you watch the erector (?) you will be surprised at how much it broadens out over the abdomen. In my experience it is nearly always separate. I have seen two layers come down, with one-fourth inch or more between them. Then if you put the suture in as a mattress suture and bring the periosteum and the two pillars absolutely together they stay. I have never had them separate. That is why I said I would make

that one of the predisposing factors in a great many cases.

In regard to keeping these patients in bed, I keep all abdominal patients in bed for three weeks. I do this because there is no fascia in which we can get good union in less than six weeks. If there is a phagcytosis this is even more difficult. I remember one man who went home and the first automobile ride he took he was jolted over something and had a recurrence. Some patients take up catgut earlier than others. I think there is no question about this. The absorption of catgut is not parallel in all cases. In some cases it is taken up very rapidly. I have done the third operation in nine cases and each of the cases was operated before with catgut. In several of these cases I knew the men who had operated. In the third operation the suturing material was silk and the patients had no further trouble.

Herniotomy is like appendicitis—the statistics given in the census is 25 per cent. None of us have any return of hernia, but it is surprising how many cases of recurrent hernia come in for operation. I may have recurrences, I do not know for I do not follow my patients. I leave it to the hospital to have experts follow up the patients.

LOCAL ANESTHESIA*

With Report of 190 Cases

G. Y. Massenburg, M.D.

Macon

The use of local or regional anesthesia is slowly but surely coming into its own in general surgery and it is only because its technique is not sufficiently well understood that it is not more universally employed.

The following list includes operations on 190 Hospital patients exclusive of skin grafts and circumcisions, some of whom were patients operated by Dr. Harry Moses.

Laparotomies	19
Gastro-enterostomy	1
Cholecystotomy	2
Suspension of Uterus	1
Gun shot abdomen with resection and repair of perforations.....	1
Acute appendicitis	2
Sub-acute appendicitis	2
Exploratory Laporatomy	8
Ovarium cysts	2
Breast operations	11
Removal tumors	5

Complete removal breast	5
Radical removal breast	1
Hernias	42
Inguinal	36
Femoral	3
Umbilical	1
Abdominal P. O.....	1
Supra Pubic cystotomy	9
Supra pubic cystotomy and removal papilloma bladder	1
Prostatectomy	2
Hemorrhoids	16
Varicocele	3
Pilo-nidal Fistula	4
Fistula in Ano.	5
Ischio-Rectal Abscesses	2
Perineorrhaphy	1
Hydrocele	3
Orchidectomy	
Large chondroma	
Testicle	1
Open reduction of fractures	9

*Read before the Medical Association of Georgia, Atlanta, May 14, 1925.

Femur-refracture reduction and fixation	1
Fracture clavicle	4
Dislocated clavicle	1
Fracture Humerous	3
Amputation Forearm	3
Removal coccyx	2
Bunions, resection of head meta-tarsal	3
Chronic ostio-myelitis with sequestrectomy	3
Decompression skull	2
Removal semi-lunar cartilage knee	1
Resection of ribs.	
Empyema	12
Glands.	
Inguinal	3
Axillary	1
Kidney	5
Pylotomy and removal stone	1
Perinephritic abscess	3
Nephrotomy	1
Carbuncles (very large)	3
Laminectomy	2
Severe injuries to forearm and hand	9
Plastic of face	3
Branchial cyst	1
Varicose Veins of leg	4
Abscess liver	1
Thyroids resection	2
Ligation Superior thyroid vessels	2
Repair Tongue	1

The following is a list of minor conditions operated under local anesthesia in the office of which no detailed record has been kept:

- Circumcisions.
- Small tumors and cysts.
- External hemorrhoids.
- Urethral caruncles.
- Amputation of fingers.
- Repair of severe injuries to fingers and other minor repair work in accident cases.
- Bone felons.
- Skin grafts.
- Ingrowing toe nails.

With the exception of pelvic operations I do practically all of my surgery under local anesthesia in which I can get the consent of the patient.

ANESTHETIC: I have used novocaine and apothesine in an equal number of cases and in no respect have I been able to detect any difference in their value as a local anes-

thetic. A0.5% solution was used in all except in a few instances when a nerve trunk was easily located in which a 1% was employed. Adrenalin was used in all solution, 3 M. to the oz. up to 20 minims. Four to eight ozs. of solution was required for average cases, 14 oz. 0.5% the most used in any one case without any toxic symptoms.

METHODS OF EMPLOYMENT: Were infiltration, field block, nerve block, paravertebral and sacral or a combination of these methods.

In Laparotomies:

A field block of 1½ inches from the proposed line of incision through all layers and infiltration of line of anesthesia.

Breast Operations:

Simple removal tumor, infiltration around tumor; removal breast, circular field block away from outer margin of the gland and generous infiltration of anesthetic of entire base above fascia of muscles.

Radical Breast:

As in removal breast with generous infiltration of the axilla and margin of pectoralis major.

Hernias:

Field block of inguinal canal, nerve blocking at internal ring and subcutaneous infiltration along line of proposed incision.

Supra Pubic:

Cystotomy as in laparotomy.

Prostatectomy:

Sacral block and as in supra pubic cystotomy.

Hemorrhoids:

Circular sub-cutaneous infiltration just external to muco-cutaneous border and pararectal infiltration to and just beyond the internal sphincter.

Varicocele and Orchidectomy:

Block at external ring and infiltration of line of incision.

Fractured Humerus and Femur:

A proximal semi-circular field block of limb, circular block around bone over field of operation, with infiltration of line of incision.

Amputation:

Circular block of limb with generous infiltration in region of nerve trunks.

Decompression of Skull:

Field block.

Resection of Ribs:

Block of intercostal nerves of rib to be resected, also the nerves of ribs above and below with infiltration over rib to be resected.

Kidney Operation:

Paravertebral block and field block and infiltration line of incision.

Carbuncles:

Field block of skin well away from inflammatory area and beneath carbuncle.

Resection of Thyroids:

One by cervical block and one by infiltration.

All other operations were done by simple infiltration.

In 75% of cases it was not necessary to inject additional anesthetic after the operations had been started, the deepest layers or nerve trunks having been blocked before the incision was made, additional solution was injected in the other cases when an area was encountered in which the patient complained of any pain.

Previous Narcotics: In adults one tablet HMC No. 2 was given one hour before the scheduled time of operation and a second like dose on leaving for the operating room. In children small doses of codine or morphine was given, no narcotic was given to any office patient.

AGE: The youngest patient operated was 21½ years old, an appendicial abscess, the patient was conscious and talkative and gave no evidence of any pain.

The oldest patient was a woman 80 years old from whom I removed a 40 pound ovarium cyst, done in the country on the kitchen table with one assistant.

PAIN: Was complained of in one umbilical Hernia, a very nervous patient, 2 prostatectomies, 2 ischio-rectal abscesses and suspension of uterus. All patients operated were asked the question, if they were operated again would they choose local or general anesthesia, with the exception of two cases all seemed most grateful for having had the operation so done. One was an umbilical Hernia. The latter said after the operation that it did not pain severely but that he was very nervous. The others that complained of pain said they preferred the local to general anesthesia. Some patients

who had had a general anesthesia for a previous operation remarked that they much preferred a local anesthetic.

GENERAL ANESTHETIC TO COMPLETE: In one case of prostatectomy only was it necessary to give any general anesthesia to complete the operation and this patient was thoroughly awake before leaving the operating room, only a small amount of ether having been given. In the case of suspension of uterus only a few whiffs of ether was given, patient being able to talk all the while.

In all operations I believe it very wise to put on a dressing tightly, especially so in local anesthesia as some of the smaller vessels may bleed following the absorption of the adrenalin, in one case of a large Lipoma of back, and another in a Hernia, and another in a Hydrocele, did a hematoma develop in the wound.

INFECTION FOLLOWED: In the Hernia and Hydrocele mentioned above. In these I attribute the infection to improper hemostasis at operation and too loose a dressing and not the anesthetic.

NAUSEA AND VOMITING AND TOXICITY: Only occasionally did any nausea and vomiting develop and then only for a short time, commencing usually while the patient was on the table, in one case was the nausea and vomiting severe. No other suggestive symptoms of toxicity developed in any case.

MORTALITY: No deaths could be attributed to the anesthetic though five patients died in the hospital.

1 age 49. Large colloid Goitre, 12 days after operation.

1 age 32. Carcinomatosis of Peritoneum 4 days after operation.

1 age 25. Tubercular peritonitis 37 days after operation.

1 age 58. Carcinoma stomach day following operation.

1 age 46. Tubercular peritonitis 14 days following operation.

MORBIDITY: Post operative and asperation pneumonia are less frequent in local anesthesia. There is no irritation of blood vessels, heart and kidneys and there is less frequent abdominal distension, less nausea and vomiting, less frequent complication of

paralytic illens and gastric dilatation in local anesthesia than in general anesthesia, indeed the post operative course is much more calm and uneventful than in general anesthesia.

GENERAL REMARKS: The three principal elements to success in local anesthesia are, previous narcotic, proper apparatus, the injection of a liberal amount of the solution. In inflammatory conditions unless the field of operation can be easily blocked away from the inflammatory area operations are not easily done without pain. A Laparotomy without pain can be more easily accomplished than the incision of a boil.

Many patients are afraid of a general anesthetic, while other patients are afraid to be awake. All patients that had been afraid that I would cause them pain were promised a general anesthetic if the pain was at all severe. No patient to whom I made this promise asked to have a general anesthetic.

Patients that seem to be nervous, after the preliminary narcotic tolerate very calmly local anesthesia, also children that are at all reasonable and controllable; I believe at least 75% of all surgery can be easily and painlessly done under local or regional anesthesia.

DISCUSSION ON PAPER OF DR. G. Y. MASSENBURG

Dr. A. J. Mooney, Statesboro, Ga.: In congratulating Dr. Massenburg on the excellent work they are doing in Macon, I wish to add my belief that in practically all cases local anesthesia is applicable and in many instances it is a life-saver. Psychology enters into the anesthesia to a very large extent. The preliminary morphin puts the patient at psychic rest and the proper anesthetic state. If you forget to add the adrenalin the novocain will be practically ineffective. Another thing about the novocain and adrenalin is that we can sterilize it by boiling. That is my practice. I prepare my one-half of one per cent novocain and put in the adrenalin, boil immediately and use. This does not have any deteriorating effects on the solution. The hernias adapt themselves especially to local anesthesia. Simple appendectomies adapt themselves in a splendid manner to local anesthetics. The difficulties and complications in connection with appendectomy under local anesthesia occur where there are adhesions that prevent raising the cecum up readily. In those cases if

you infiltrate the base of the appendix this difficulty is obviated in a large per cent of cases. Dunn advocates the use of quinurea in the meso-appendix instead of the use of novocain and adrenalin. When you infiltrate the base of the appendix you can make traction and can do practically all of these cases under local anesthesia. Retrocecal appendices are exceptions. Especially in empyema in children, a local anesthetic is indicated. I have resected a rib in a child two years old with splendid success. You can take a child whom you feared to give a general anesthetic and when you have finished the resection of the rib under local anesthesia the administration of the anesthetic has given the child pep and he is in better condition than when you started. It is a life saver following abdominal operations where the patient develops obstruction and where the second operation under general anesthesia would prove fatal. In those cases an enterostomy under local anesthesia will save the life and the intestinal fistula can be closed later, after the patient has recovered. The use of the local anesthesia is limited only by the surgeon's knowledge of the nervous system. I have repaired a hernia and done an orchidectomy and appendectomy in the same patient with no pain.

Dr. L. W. Grove, Atlanta, Ga.: I have presented three or four papers on this subject before this body, but feel that this very interesting subject deserves even more discussion.

As has been well said, the limitations for local anesthesia are becoming less and less pronounced. The more we use it, the more we extend its use. What has been true of general anesthesia will probably be true of local, namely, that we should not have any fixed anesthetic, especially in abdominal surgery. On the contrary we should add to the preoperative preparation, a careful study of the type of anesthetic best suited to the individual case. Probably the most important thing in deciding for or against local anesthesia is whether the patient is, or is not receptive to the method.

If I am correct, Dr. Massenburg said that 75% of abdominal work could be done under local anesthesia. I think that this is probably true, provided we are careful, in the selection of our cases, but it is certainly not true if we use local anesthesia as a routine. The two most important things that make for success are first, receptiveness of the patient to the method; second, gentle handling of the tissues. If the patient is co-operative, and to this is added gentle manipulation, with feather edge dissection, the results are excellent.

While I am aware that many of the men

who are more experienced in local anesthesia than I am, particularly Farr, condemn the free use of pre-operative hypodermics of morphine and scopolamin; it has been my experience that unless these patients are well screened from psychic shock, we will not be able to go far in abdominal operations. This is best accomplished by pre-operative hypodermics of morphine and scopolamin, the amount depending on the age and condition of the patient. I feel very keenly the necessity of protecting these major cases, from the psychic trauma incident to an abdominal operation.

As to the method of administration of the novocain, we have tried the para-vertebral, sacral, spinal and various conduction methods, but have gradually come back to the old method of infiltration. It can be administered by the operator as it is indicated, is safe and is unquestionably the method of choice, in the majority of cases. Spinal and sacral anesthesia unquestionably have very definite places in well selected cases. I don't think that splanchnic anesthesia will be taken very seriously. As has been shown by Meeker, it is of very little value. It has been my experience that the usual abdominal operation, for example, appendectomy or cholecystectomy, can be done with the infiltration method, with less trauma and less discomfort, than is necessary in administering splanchnic anesthesia. It actually requires less traction and less intra-abdominal manipulation to do these operations, than to administer splanchnic anesthesia.

In conclusion, I don't think we can stress too strongly the necessity of including the anesthetic in the pre-operative study of our patients. The anesthetic should be fitted to each individual case.

Dr. Charles K. Wall, Thomasville, Ga.: I wish to congratulate Dr. Massenburg and say that we, as medical students, were taught a great deal about nerve blocking. I was associated with Dr. Allen of New Orleans at

one time and he used to tell us to get the field blocked, but I noticed when I was an intern he poured in a half a pint or more. He blocked them with a mass infiltration.

I agree with Dr. Grove that we are coming back to the massive infiltration. In amputating the arm it is easy to inject the nerve trunk and get the mass anesthesia, but in a good percentage of cases we have to fall back upon the infiltration.

I was impressed by Dr. Massenburg's pre-operative hypodermatics. I have found that one H. M. C. will pretty well dull the patient and if two are given there is not much use for the rest of the anesthetic.

Dr. G. Y. Massenburg, Macon, Ga., (closing): I believe the comfort of the surgeon is much greater in local than in general anesthesia, it has at least been my experience to feel a great sense of security in operating under local anesthesia.

I believe that 75% of all surgery can be easily done under local anesthesia if all the patients should be agreeable to it.

Some patients are afraid of possible pain, I assure them of something to quiet them and tell them if I cause them much pain I will give them a general anesthetic. Hyocine, Morphine and Cactin has a more desirous effect than the straight morphine.

It is very important to thoroughly screen the patients so they cannot see any of the instruments nor the bloody sponges. The psychology of the patient is one of the most important things to bear in mind.

I have done a number of operations with the Luer Syringes but it is not satisfactory, one does not usually inject enough of the anesthetic. The Dunn apparatus facilitates very much in giving the anesthetic. It is not necessary to inject the nerve trunk, a generous infiltration in the region of the nerve is sufficient.

I do not believe it takes any longer to do the infiltration than it does for some anesthesiologists to put the patient to sleep.

HISTORY-TAKING BY THE GENERAL PRACTITIONER*

W. H. Clark, M.D.

LaGrange

The record of cases taken in general practice over a period of ten years were studied with the idea of determining the percentage of diagnosis that could be attributed to the case histories alone. The question arose, what constitutes a diagnosis? For the purpose of discussion we will accept the definition of diagnosis to mean: "The recognition

in the patient of a known disease from the symptoms which are characteristic of it." The records were not of such a character as to allow an accurate estimation of the percentage of diagnosis which could be made on the history alone. The value of the case-history to make a diagnosis, its help in direction of constructive consultation and the assistance in prognosis and treatment was so striking that it prompted an attempt to

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discuss the subject. Such a paper will necessarily have to deal with the subject in a very general way, and after all, is only an attempt to emphasize the importance of some phases of the case-history.

The General Practitioner has probably the greatest opportunity for early diagnosis than any other Medical Man. The vast majority of conditions handled by the Specialists are first seen by the man in general practice, and except in very evident conditions, the public depend entirely on the family physician for advice as to when and where to obtain consultation in special lines. These facts immediately bring to mind the responsibility as to early diagnosis and suggests the necessity of co-operation between the specialist and the man in general practice.

Present conditions in medicine make this subject of special importance to the general practitioner. Fifteen to twenty years ago, it took one man to make a diagnosis, now in many cases it takes from three to five specially trained in special lines. Unfortunately in many cases, the general practitioner is forced to handle the situation alone. He is confronted with the problem of the delivery of adequate medical service within the means of his patients. Education of the public has brought our patients to the place where they are not content to do without the expensive aids in diagnosis and treatment. When sick, they demand the best even though they are able to pay but little. Many of us realize how discouraging it is to be deprived of the many modern aids in diagnosis. An analysis of the more important causes of errors in diagnosis will show that they are not due in many cases to a lack of these things. In a broad way, an analysis of the cause of error in diagnosis will be found to be: First—Incomplete or incorrect case-histories. Second—Incorrect analysis of the case-history. Third—Incomplete physical examination. Fourth—Failure of application of the very simple laboratory tests with which we are all familiar.

In a general way, the cases with which we have to deal, from a diagnostic point of view, may be classed into three groups. First—Those which are not susceptible to diagnosis by any medical man or group of

men. Second—Those which clear up after the application of a well known diagnostic routine, and these form the largest number of cases with which we have to deal. Third—Those which need the assistance of one or more men trained in special lines. A carefully taken case-history will lead to a well directed investigation in this group.

The importance of a complete and correct case-history as a part of the diagnostic routine, even though a very elementary subject, can surely not be over-emphasized. Any one familiar with the life of the general practitioner can realize the fact that circumstances will not permit the taking of a case-history in all conditions called on to treat, and besides there are many cases where written or detailed histories are unnecessary, but a careful analysis of symptoms is most important. As an illustration, the mode of onset, the sequence and course of symptoms in many of the acute abdominal conditions will often be sufficient to differentiate. The mode of onset of a perforated peptic ulcer is very characteristic, yet the condition at the time of examination may appear identical to several other acute abdominal conditions. Again, the onset of an acute pneumonia in an adult may give us strong suspicions even before the physical signs are not conclusive of anything. The advanced state of disease has a tendency to obscure the early symptoms, which seem of so little importance to the patient that they are never mentioned, and have to be patiently sought for by the physician. As an illustration: A patient came in the hospital presenting symptoms suggesting either a right Psoas abscess or a well advanced acute appendix. Five years previously—after three weeks in bed with so-called typhoid fever, he had an abscess just to right of left iliac spine drained, and he rapidly recovered. The diagnosis of Psoas abscess was made. The second operation revealed an acute appendix, and the fact that the abscess five years previous was due to an abscess originating from the ruptured tip of the appendix which was on the left side. Careful questioning of the first sickness, five years before, brought out symptoms of onset in absolute keeping with an acute appendix.

The sequence, course and character of the

subjective symptoms in Pyelitis, Appendicitis, Dietls Crisis and twisted pedicle cyst may aid greatly in differentiation. The acute and rather emergency conditions which we are called to see are too numerous to take up in detail, but these are given to illustrate the importance of the Anemnesis. When practical, the history should be written, in order to avoid failure to ask some very necessary questions, and by writing, it is easy to realize the difficulty in taking a valuable history. One of the greatest handicaps in taking a complete history is the attempt to follow a printed form. It is impossible to get a form to suit every case. The best results are obtained by using a blank, and following the outline, carried in mind. In this way there is no tendency to limit the information at any particular phase of the case. For example—the space devoted to the digestive system might be adequate for some cases, but the symptoms often necessitate a very detailed description of the duration, sequence and various characteristics of the symptoms. A printed form discourages a useful history. A voluminous and elaborate history is not only unnecessary, but may be misleading. From the standpoint of the general practitioner, this task should not be left to a trained nurse or assistant. A history worth taking should not be hurried through, if a general outline is followed, the information will be thorough and unnecessary delay will be avoided and the time spent will most often pay valuable dividends. Haste and carelessness is a chief factor in preventing a good history. Following the name, age, date and occupation, we take up the present illness, which is the thing of the most importance to the patient. The patient's statement of symptoms of disease should not be accepted, as a rule, on their face value. A thorough analysis of their symptoms at this point is necessary. In many cases it is well to listen attentively to the patient's own story, while in some cases it may discourage the intention to proceed systematically, but much may be learned. All the information possible should be obtained about a given symptom. First—It must be proven that the symptoms are as stated by the patient and then exhaustively analyzed. All past diseases are asked about

which might have any bearing on the present illness or help to discover any anatomical defect. It is usually unnecessary to ask about previous operations, because if they have any bearing on the case they are usually mentioned in the present illness. A real pain in the epigastrium with no other description may point to a number of conditions, but, if the pain always recurs at a definite time after meals, either just after or several hours after, but always at a definite time, or if it occurs after all three or after any one meal, but always at the same interval, radiation and relief by Sodium Bicarbonat, vomiting, and may be associated with distension, constipation, etc., then we have obtained one of the most valuable evidences of typical peptic ulcer. In the same way, an analysis of the symptom may lead to a suspicion of the gastric crisis of Tabes. Complete loss of appetite is a very typical symptom of cancer of stomach and may be the only symptom in the early stage, being such a common complaint, however, questions have to be directed to discover other plausible causes. The value of a case-history in the diagnosis, prognosis and treatment of many digestive disorders and diseases, all the cardio-vascular diseases and nervous diseases can not be estimated.

Next the family history is taken up, and is of sufficient importance to ask a few well directed questions. At least ten generations are necessary to establish a hereditary factor with any degree of certainty, and three generations cover a period of about one hundred years, so the real facts as to the importance of heredity is as yet obscure. But no one can doubt that the hereditary predisposition to disease is most important. To know the nervous make-up of the parent may lead to an understanding of peculiarities in our patients and help to direct care of the nervous system valuable as a prophylactic to mental disorders. Tuberculosis and cancer should be asked about, and there is little doubt that heredity is an important factor in Cardio-vascular-renal disease.

Next the question of Past history is taken up. The most systematic procedure is to take up each anatomical system in order, so that none will be over-looked. In this we accomplish two things. First—We get a his-

tory of disease and symptoms with the details that may have a bearing on the present illness, and second, we make a systematic search for symptoms that might influence the further diagnostic survey.

Then the patient's daily routine is asked about, and in some patients this is of great importance. His work, diet, sleep, exercise, use of tobacco, drugs, etc., are taken up.

As a part of the diagnostic routine the Anamnesis has other special advantages to the man in general practice. It enables him to give more systematic advice along lines of preventive medicine. The great question of Mental Hygiene should receive the attention of the general practitioner as well as Tuberculosis and many other conditions. As the early symptoms of disease are often only

subjective, the question of an adequate history is of great importance. In the periodic examinations for health purposes, a carefully taken history is often of more importance than the physical examination itself. It takes many years of experience to be able to ask the appropriate questions and years of experience to be able to interpret the answers. To get the most valuable material from the case-history, each and every symptom, past and present, and the details of previous diseases must be fully analyzed. Avoid any type-written forms. A good Anamnesis, not too elaborate but thoroughly taken, will go a long way toward establishing an accurate idea as to the physical, psychical and social status of the patient.

SYPHILIS AND THE GENERAL PRACTITIONER*

Henry Levington, M.D.

Savannah

Although we have advanced tremendously in recent years in our knowledge of the etiology and treatment of syphilis, it is still a very vital and often misunderstood problem for the general practitioner. 26,000 persons die yearly from syphilis. An inquiry made in 88 state hospitals for the insane in the United States showed that the percentage of admissions whose insanity is due to syphilis is 18 per cent. The large percentage of these are charges upon the State. Add to these the large number of paralytics which are housed in state institutions, to say nothing of the old chronic paralytic syphilitics which fill up large portions of the beds in our free wards, and we begin to realize what a huge economic burden syphilis is placing upon us. These figures, statistics show, are increasing yearly.

That it is still a problem is evidenced by the fact that in France in 1922, one-tenth of the population is said to have suffered from it. 20,000 infants die each year from this disease, and in every year, 40,000 miscarriages are traced to it.

Sir William Osler, paraphrasing a Biblical expression, said, "Know ye syphilis in all its manifestations and all things medical shall be added unto you," the inference be-

ing that the manifestations of syphilis are so protean that they simulate almost every known disease, and yet, since the advent of the Wasserman reaction, and the discovery of the various so-called specific arsenicals—the medical profession is prone to regard syphilis as a closed book. It is rarely discussed in our local district, state, and national meetings, and very little concerning it, in comparison to its morbidity, is written in our current literature. One is struck by the paucity of papers written on this disease—the complications of which reach the pediatricist, the neurologist, the urologist, the internist, surgeon, Roentgenologist, and every other specialist in medicine. A study of the papers of the program of the State Association for the past five years reveals the fact that there were 282 papers on various subjects. Of all these papers, there were only five on syphilis. Is this not overt evidence of the attitude of the practitioner toward syphilis? Is syphilis a closed book, and has the final word in syphilis been written as our attitude apparently warrants.

1. Is Syphilis curable?
2. Are we treating Syphilis rationally?
3. What are the criteria of a cure?
4. Should a syphilitic marry?

These are vital questions which confront

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us as general practitioners daily, and I fear are as far from solution as they were formerly. My excuse for this paper is a cursory discussion of these problems.

The establishing of the standardized Wasserman reaction and the introduction into our armamentarium of the various arsenicals, such as arsephenamine, neo-arsephenamine, silver arsephenamine, tryparsamide, and sulpharsphenamine has had a tendency to cause general practitioners to first attempt to establish a positive diagnosis by means of the Wasserman test, and having done this, to cure a patient by the same standard, that is, a negative test. In our zeal to secure this negative test very often we overlook entirely the patient. Regardless of his physical economy—his habits—his coincidental pathology, once we have established a four plus, this fact becomes paramount in our minds, and we often neglect his other ailments in our quest for a negative Wasserman. Should we not at the same time attempt to husband and strengthen his vitality, regulate his diet, habits, etc., as we do in treating other diseases? As one writer puts it, "Often the Wasserman test, not only supplies the diagnosis, but also the control of the treatment. The positive test having established the diagnosis, should not plus speedily become minus, if the spirochetes are fast to one, they will surely become loose to another." In other words, are we not today using the Wasserman reaction which after all is only a pseudo-diagnostic guide as the judge, juror, and executioner of our patients, the syphilitic, very often neglecting even to use this test on the spinal fluid.

Is it right to neglect the old and tried clinical evidence, signs, symptoms, and basic principles of treatment; and supplant these absolutely by laboratory tests? Is this not the tendency of today, and are not our patients sufferers thereby? Is the patient becoming a laboratory animal, into whose veins we periodically inject drugs to affect the negative Wasserman reaction, while the important factors, namely, strengthening his inherent resistance and increasing his natural intolerance to infection by accepted standards of treatment are often neglected.

When we treat a nephritic, a cardiac, or a diabetic, do we merely give him digitalis or insulin? No, we take stock of his physical condition, his habits, mode of life, exercise, diet, etc., and regulate them with the idea of increasing his natural inherent resistances. Why then should we neglect these factors in our syphilitics? Are we treating our patients and keeping them under observation as long as we should? Does the busy doctor doing general practice make a diagnosis either from the presence of the trypanosome in a dark field examination taken from an initial lesion, give a patient a certain prescribed and often limited course of arsenicals, mercury and iodide, have him report back for blood tests, finding this negative in the course of a year, dismiss the patient as cured? Is this fair to our patient with the abundance of evidence we now have at our disposal, even permitting him to marry? Relapses are known to occur after a patient has remained asymptomatic, and Wasserman negative for seven years. Again cerebro-spinal syphilis may develop by the time that the chancre is manifest. Furthermore, we know that a vast majority of patients with late syphilis, even with negative reactions periodically are often never cured. We know of innumerable instances where we obtain negative blood reactions with positive spinal fluid reactions, positive globulin and increased cell count and even a tabetic or parietic curve.

You may say that if we discuss syphilis with our patients truthfully, explaining to them the dangers and complications, that we are alarmists, unduly frightening them, making syphilo-phobias of them. But is this true? We do not hesitate to tell our tuberculosis patients that they have tuberculosis, our nephritic patients that they have Bright's disease, our glycosuric patients that they have diabetes, our Hypertensive cases that they have high blood pressure, why then pick on the poor syphilitic and keep him in ignorance as to his real condition. The criticism of commercialism may well be directed toward us in our present day tactics in treating our syphilitics.

The startling figures that untreated cases of secondary syphilis show sixty to seventy

per cent positive spinal fluids which rapidly falls to 40 per cent in the first six months and 25 to 30 per cent in a year or two, even with treatment, prompted me to write to our various health departments in Georgia to ascertain the percentages of spinal fluid taken and examined as compared to the number of specimens of blood taken and examined, for the Wasserman test. The figures for 1924 were:

Augusta	5655 bloods—115 spinal fluids
Columbus	1431 bloods— 15 spinal fluids
State Lab.	
(Atlanta)	19,832 bloods— 91 spinal fluids
Macon	1385 bloods— 37 spinal fluids
Savannah	4286 bloods— 30 spinal fluids

In other words, these figures, which might be considered an average for the entire state, show that we examined only 288 Spinal Fluids, as against 32,589 Bloods, the percentage of which is appallingly low. If it is true and the figures are generally accepted by our leading syphilologists that 25 to 30 per cent of secondary syphilis show infection of the central nervous system and we the general practitioners are taking only one spinal fluid to every 860 bloods, the finger of criticism for this shocking state of affairs points clearly and justly at us.

Many of us wait until some objective sign of neurological pathology such as inequality of pupils, asphasia, knee jerks, tabetic gait, mental symptoms, etc., appear before we do a spinal puncture. It is at this stage that we can help, but help the least. The best we can hope to do in late neurosyphilis is to alleviate the symptoms. When marked organic degenerative pathology occurs, treatment is often hopeless. Drs. John H. Stokes and Albert R. McFarland of the Mayo Clinic in an interesting study stress the importance of early spinal punctures. I quote freely from their paper, published in April, 1922:

"The syphilographer, who carries the treatment of his primary and secondary cases into their second course without examination of the spinal fluid is proceeding blindfolded. He is doing worse for as several of our cases illustrate serious grades of neuro-syphilitic involvement indicated by the spinal fluid may occur before the appearance of secondary lesions to say nothing

of general symptoms and may fail to respond to a single routine course of treatment. If the patient is discharged with an incipient neuro-syphilis or is placed on a less intensive interim of mercurial treatment, the danger of a neuro-recurrence is very great. They estimate the proportion of positive spinal fluids with negative blood as from 25 to 35 per cent in routine diagnostic work of late syphilis.

What then is a rational prognosis in syphilis, and when should a syphilitic marry, if at all? There are two schools, the radical and the conservative. The radical school believes with Buzzard that "if you take a hundred cases of syphilis and treat them all according to the standard methods of today, you are justified in believing that a certain percentage of them will have been cured; but you cannot honestly tell any single one of these patients that his disease has been eradicated I am optimistic enough to believe that if this truthful policy were adopted and patients urged to have periodic courses of treatment for the rest of their lives, we should see very much less of the late syphilitic disease than we do." Kilduff says, "Syphilis is a curable disease, but it is a wise man—or a rash one—who undertakes to say just when it is cured in a particular case. The price of safety is eternal vigilance."

The conservative believes with Veeki that "A persistent negative Wasserman reaction of blood and spinal fluid, other negative findings in the latter, chiefly a normal cell count, and absence of all clinical symptoms, and adenopathy—are considered as proof of a cure." But, of course, here too in this school there is a great diversity of opinion as to how long the negative findings must be established, before this cure is effected.

At the conference of Venereal Disease Control Officers of the State Health Department and the United States Public Health Service, held in Hot Springs at the beginning of this year, it was urged that no one system of treatment should be proposed which would do away with the necessity for the careful individualization and control of each patient. This conference suggests that "no method or system of treatment can in

the present state of knowledge be proposed as infallibly curative. It urges that the indiscriminate use of the term "cure" in the treatment of syphilis be checked, and that in its stead the patient be accustomed to think of "arrest," and to expect and seek observational control at appropriate intervals and under appropriate medical and consultant guidance, throughout a period of years, if not for life."

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DISCUSSION ON PAPER OF DR. HENRY LEVINGTON

Dr. William H. Myers, Savannah, Ga.: Dr. Levington is to be congratulated on the excellent way in which he has handled this subject. I think no one in our city is devoting more time and more conscientious work to the subject of syphilis, and as he brought out, it demands the very best we have. In the colored population in this country particularly, the prevalence of syphilis is appalling. I saw an article about two weeks ago by two Boston men, on the percentage between white and colored individuals and they gave low figures, 1 per cent white to $1\frac{3}{4}$ per cent colored. That does not obtain in the Southern parts of the United States. During the war I think the infection by venereal diseases in this State was the highest in the United States. I am sorry to say that our city had the highest rate of infection of any city in America. I think we have at least 50 per cent of the colored population infected, or

perhaps more. It is rare that I see a colored person that I do not take the blood Wasserman reaction, and a large percentage of them are infected. I am suspicious when I get a reaction that is not positive. The servant class in our homes is almost all infected. These women are probably either childless or have no more than one child and are therefore able to leave home. We all know that extragenital infection is not a very common problem confronting us. If it were very few of us would escape. Dr. Levington believes, as any other man will who studies the subject, that intensive treatment, combined with education, is the only means of controlling this disease. The patient should never be considered cured until he shows a negative spinal fluid test.

Regarding the arsenicals, I have used tryparsenid less than any others because of the warning against its use in involvement of the optic nerve. I have used sulpharsphenamine with the result that I have had two very bad cases of dermatitis. But have had no bad results from any of the others. My impression is that the old arsphenamin is the best preparation. It has more "kick" and that is what we want.

Dr. Joseph Yampolsky, Atlanta, Ga.: I am not directly interested in the treatment of adults, but I am interested in the treatment of syphilis in children. I have insisted for several years that syphilis in children seems to be on the increase, and I believe that if we do not soon find some intensive way of treating adults that we will have to pass a law to sterilize every syphilitic. They are propagating more syphilitic children than ever before and this is due to the fact that we are not taking enough interest in the treatment of syphilis in the adult.

I think in relation to the arsenicals that we are not yet doing our duty. We see almost immediate disappearance of some few signs of syphilis, after a few days of treatment, and both the doctor and the patient too often think the patient is cured. I wish you would go into the large wards of any of the large hospitals and see the number of syphilitic children there. We have found that after treating a large number of colored women during pregnancy we still have about 15 per cent syphilitic, and most of these children have no signs of syphilis except those found by doing laboratory work, the puncture of the liver and the spinal cord examination.

I believe that patients with syphilis should not marry for ten years and that during that time they should be treated without intermission.

SURGERY OF THE COLON***Walter E. Sistrunk, M.D.****Mayo Clinic, Rochester, Minnesota**

On account of the high mortality of radical operations on the colon, they should be advised only in cases in which they seem quite urgent. It is only by great effort and through experience in the operative procedure that the mortality can be kept within reasonable limits.

I wish especially to emphasize the importance of carefully selecting patients for operation, preparing patients before the operation, performing certain operations by stages and instituting careful postoperative treatment if this mortality is to be diminished.

I shall take up only the more common conditions for which radical surgical treatment seems indicated. The common benign conditions are obstinate constipation with evidences of intestinal intoxication which fails to respond to medical management, Hirschsprung's disease, chronic ulcerative colitis and diverticulitis, while carcinoma is the common malignant condition which calls for radical surgical treatment. There is a considerable difference in the mortality of operations for benign and for malignant conditions.

Surgical Treatment of Benign Diseases

Obstinate Constipation with Intestinal Intoxication.—Radical operations for this condition should be advised only after careful medical management has failed. Much discussion has arisen as to what portion of the bowel is responsible for colonic stasis; some authorities contend that it occurs in the right half of the colon, while others have felt that the fault lies with the failure of the rectosigmoid properly to discharge the contents of the colon through its sphincter apparatus. In nearly all such cases the transverse colon is found to be prolapsed, the cecum, ascending colon and low-lying sigmoid lengthened into a redundant loop.

When an operation seems definitely indicated, fairly good results may be obtained by either removing the right half of the colon and performing an ileocolostomy between the lower ileum and transverse colon near its middle, or by performing a low ileosigmoidos-

tomy and excluding the colon from the alimentary tract. When the latter operation is performed, it is best to cut the ileum across between the point where the anastomosis is made and the ileocecal valve, and to close each of the cut ends. The sigmoid also should be cut across at a point just proximal to the anastomosis, the distal end closed, and the proximal end brought out through the abdominal incision for the purpose of draining the colon. Unless such a procedure is followed, gases accumulate in the colon and produce marked distension and discomfort. The sigmoid fistula which results from an operation of this sort discharges a small amount of mucus but no feces and, although it is necessary for the patient to wear a pad to protect the clothing, the result is much less objectionable than a fecal stoma. Either of these operations may be performed with less risk than a complete colectomy; and, in my own experience, either is followed by results comparable to those obtained by complete colectomy. I believe that they should be advised, however, only for patients who are badly handicapped and unable to attend to their usual duties.

Plastic operations in such cases, performed with the idea of diminishing the lumen of the bowel or of fixing it to the abdominal wall, have not proved generally successful. Very occasionally such operations may give good results, but they cannot be recommended as offering much chance of relief to the patient.

Hirschsprung's Disease.—In young children in whom it is impossible to obtain satisfactory evacuations by medical management, appendicostomy may be performed for the purpose of irrigating the colon until the age when something more radical may be done. After children reach an age of eight or ten years it is often possible, because the disease is limited largely to the sigmoid loop, to resect the diseased portion of the bowel by a Mikulicz type of operation. In such cases the peritoneum surrounding the rectosigmoid is usually freed, so that the rectosigmoid may be drawn upward as close as possible to the under surface of the abdominal incision and, after the loop of hypertrophied and dilated

*Read before the Georgia State Medical Association, Atlanta, May 15, 1925, as its invited guest.

bowel, often comprising several feet, has been lifted out of the abdominal cavity, the abdominal incision is closed around it. This loop may be punctured with a cautery to relieve gas tension after a few days, if necessary, and may be cut off after ten or twelve days. At that time clamps may be applied to the partition between the two limbs of bowel deep enough if possible to cut the rectosigmoid apparatus; later the colostomy may be closed.

In adults the entire colon may be affected, and a different operation is usually necessary. In such cases a low ileosigmoidostomy, with the exclusion of the colon from the alimentary canal, probably attains the best result. Patients with acute obstruction from Hirschsprung's disease are often found to have a large round ball of feces, sometimes as large as 15 cm. in diameter, impacted at the rectosigmoid. An abdominal operation in the presence of such obstruction is extremely dangerous. Such patients, from long-continued constipation, are usually partially immune to the toxin absorbed and stand the obstruction well, and it is often safer to spend several days, if necessary, breaking up the impaction through the rectum, under repeated light anesthesia. After the obstruction has been relieved, the patient may be prepared for a colon operation, and an abdominal operation of the type suggested may be performed.

Chronic Ulcerative Colitis.—As yet no specific medical cure has been discovered for this disease, and most patients afflicted by it grow progressively worse until a surgical operation becomes necessary to save life. The diagnosis may usually be easily made from the history, and the proctoscopic and roentgenologic examinations. A permanent ileostomy, of a type similar to that suggested by Brown, has given the most satisfactory results. Experience has shown that it is unwise to explore the diseased bowel after the abdomen is open. The virulence of the organisms in the bowel wall apparently is such that trauma of any sort, even that incident to an exploration, tends to produce fatal peritonitis. When the diagnosis is well supported ileostomy should be performed without abdominal exploration.

In operating, the lower ileum is isolated after an incision through the lower right rec-

tus, usually made under local anesthesia. The ileum is cut across at a point 12.5 or 15 cm. above the ileocecal valve; a clamp is left on the end of the ileum nearest the ileocecal valve and a tube is sutured in the proximal end. The abdominal wall is then closed around the two ends of bowel. The operation is advised for patients who are growing progressively worse and who fail to respond to medical treatment. The ileostomy must remain permanently, as experience has shown that the colon in healing tends to contract and to become constricted, and that it is inadvisable afterwards to close the stoma. The mortality from radical operations, such as resections, performed during the acute stages of this disease, is usually high; such operations should never be attempted. At present this disease is a most unsatisfactory one to treat from every standpoint. Most patients improve after permanent ileostomy, but there is some question as to whether the cure is not worse than the disease.

Bargen has recently isolated from many patients with ulcerative colitis, a diplococcus, probably a form of streptococcus by inoculation with which he has been able to produce in animals an ulcerative colitis. At present he is attempting to produce a vaccine or serum from this organism for the treatment of the disease in man.

Diverticulitis.—Although diverticula occur in many parts of the intestinal tract, only those seen in the region of the sigmoid are usually of surgical importance. When diverticula of the sigmoid become inflamed, they produce on the left side symptoms similar to those seen on the right in acute appendicitis, but they may be associated with bowel movements containing bloody mucus. The best treatment of acute diverticulitis of the sigmoid is similar to the medical treatment of acute appendicitis. Occasionally an acute attack goes on to the formation of an abscess which may require drainage or which may rupture spontaneously into the bladder, thus producing a sigmoidovesical fistula. Operations should certainly be avoided in the acute stages. Most patients survive acute attacks, but these are likely to recur. Efforts should be made to prevent them by carefully regulating the bowels, by diet, and by having the patient avoid strenuous exercise. If the at-

tacks continue to recur, operation is indicated.

The mortality from primary resections for diverticulitis of the sigmoid is high. The operation should be considered only after efforts to reduce the acuteness of the disease by rest in bed, ice bags, and so forth, have failed, and then, in most instances, should be performed in stages. Occasionally a Mikulicz type of operation may be performed, but if the tissues are highly inflamed an operation of this type is associated with considerable risk. As a rule colostomy with resection of the involved bowel and an end-to-end anastomosis several months after the colostomy has been performed is the safest method of dealing with the condition. The stoma may be closed later.

It is safer when dealing with benign diseases of the colon to prepare patients carefully before operating, usually by administering an ounce of castor oil about three days before the operation and by restricting the diet, after the oil has been given, to carbohydrates and liquids. As a rule, water, in large amounts, fruit juices (orangeade, lemonade and grape juice), ginger ale, tea and candy only are allowed. After the purgation, patients are given enemas night and morning until twenty-four hours before the operation, when they are discontinued and a teaspoonful of paregoric is given every three or four hours until the time of the operation. Such preoperative preparation tends to change the bacterial flora in the colon, and the bowel at operation if not empty will usually contain only solid feces. Under such conditions the operation may be performed with a minimal amount of soiling.

In order to prevent peristalsis after the operation, physiologic solution of sodium chlorid is given subcutaneously in amounts of from 2000 to 2500 c.c. a day and no fluid or food is allowed by mouth or rectum for a period of four or five days. For the first forty-eight hours after the operation, morphin in 1-6 grain doses is given at four-hour intervals, and during the second forty-eight hours codein in doses of from 0.5 to 1.0 grain is given at intervals of about three hours. At the end of four full days, if the pulse has diminished in frequency, it is usually safe to allow small amounts of warm water

by mouth. This is usually continued for twenty-four hours; fruit juices, ginger ale and tea are given for another twenty-four hours; broth, gelatine, junket and custards are then added. Such treatment allows the patient to pass through the first four to six days following the operation with a minimal amount of distension by gas. By diminishing distension this method tends to prevent leakage around the suture line, one of the frequent causes of death following such operations.

Surgical Treatment of Carcinoma of the Colon

Modern methods of diagnosis by means of the roentgen ray have greatly facilitated the early diagnosis of cancer of the colon. With the roentgen ray it is often possible to make a definite diagnosis of the tumor while the clinical symptoms are still vague. Because of the virulence of the organisms in the contents of the lower intestinal tract and in the wall surrounding the growth, and because in many cases in which operation is performed there is either partial or complete obstruction, resection of the colon for carcinoma is often followed by fatal results. The wall of the colon is so thin and its blood supply so limited that healing is less rapid than in other portions of the intestinal tract, and when the sutured bowel is distended by gas before safe healing has taken place, leakage may easily occur along the suture line and cause fatal peritonitis. On the other hand, patients who survive operation for carcinoma of the colon, if it is not too extensive, have an excellent chance to remain well, as it is often possible by a wide resection to remove not only the growth but also the glands draining the affected area. The end results following operation depend largely, however, on the extent of the disease at the time of the operation and the absence of extension to the glands. If metastasis cannot be demonstrated, operability depends largely on the ability and experience of the surgeon and the amount of risk he is willing to assume. The excision of growths which, through inflammatory changes, have become fixed to surrounding structures, is difficult and should be attempted only by experienced surgeons. The mortality decreases and the percentage of oper-

able cases increases as the surgeon grows in experience with the disease.

Operation for carcinoma of the colon also demands careful preoperative preparation. When there is no obstruction this is probably best carried out by the method suggested for benign conditions. When there are evidences of partial obstruction, purgation should be omitted because of the danger of precipitating acute obstruction. In such cases an ounce of mineral oil is usually given three times a day and an enema night and morning for four or five days before the operation. During this time the patients are given only water, fruit juices and sugars. Twenty-four hours before the operation the oil and enemas are discontinued, and a dram of paregoric is given every three or four hours.

If acute obstruction exists, nothing is to be gained by preoperative preparation, and early operation, to relieve the obstruction only, offers the patient the best chance. Radical operations, in the face of acute obstruction, have a very high mortality and should never be performed, since the bowel is usually filled with liquid material which teems with virulent organisms and it is almost impossible to operate without considerable soiling. The infection and edema found in the bowel walls for a considerable distance beyond the growth tend to prevent satisfactory healing, and operations under such circumstances are usually followed by fatal peritonitis.

The type of operation depends on the situation of the growth, the amount of infection in the bowel wall, and the amount of obstruction present. In general it may be said that in all cases of evident infection in the bowel wall and obstruction it is safer to operate by stages. The first stage of such an operation usually consists in performing ileocolostomy, colocolostomy, ileostomy or a colostomy for the purpose of relieving the obstruction and thus diminishing the infection in the bowel wall.

Considerable difference is found in the mortality following primary radical operations in nonobstructed and even partially obstructed cases, and for this reason a preliminary operation for the relief of even partial obstruction should always be performed, if possible, before a radical resection is attempted. In nearly all cases in which palpable growths are

present before the operation, a highly infected growth with partial obstruction will be found, and it is well before beginning the operation in such cases to plan a two-stage operation. Occasionally small carcinomas without evidences of infection or obstruction are found. A two-stage operation hardly seems necessary in these cases, and primary resection may be completed with an enterostomy at the same time to relieve the gaseous distension after the operation.

For carcinoma of the cecum, ascending colon and hepatic flexure without obstruction or evidences of infection, the ascending colon may be resected in one stage and a lateral anastomosis made between the lower ileum and transverse colon. In such cases it is safer to perform an enterostomy, using a small catheter in the lower ileum, at the time of the operation. If obstruction is present, I feel that the best results are obtained by first making an anastomosis between the lower ileum and the transverse colon and resecting the ascending colon after two or three weeks. At the time of the first operation, the ileum should be cut across distal to the anastomosis in order to divert the bowel contents from the affected area and thus place this portion of the bowel as nearly as possible at rest.

The mobility of the transverse colon often makes it possible to perform a Mikulicz type of operation for growths situated in this portion of the colon, and in many cases the first and second stages of this operation may be performed at the same time. In an operation of this type it is safer to perform also at the same time an appendicostomy or cecostomy in order to prevent postoperative gaseous distension. The splenic flexure and the descending colon as far down as the beginning of the sigmoid flexure are usually fixed, and it is difficult to remove growths situated in this portion of the bowel by a Mikulicz type of operation. It is usually safest in such cases to perform a short-circuiting operation (colosigmoidostomy) and after two or three weeks to resect the growth. The sigmoid loop on account of its long mesentery is usually quite mobile, and growths in this portion of the bowel that are not highly inflamed may be quite safely resected by a Mikulicz type of operation. But if highly inflamed and adherent growths are found in the sigmoid loop,

it is usually best to perform first a colostomy and, after two or three weeks, a resection of the growth with an end-to-end anastomosis. The stoma may be closed at a later date.

When the growth is at the rectosigmoid, and extends into the upper rectum, leaving from 2.5 to 3.75 cm. of the rectum above the peritoneum in the bottom of Douglas' culdesac free and unaffected, it is usually safest to perform first a colostomy in the sigmoid flexure by means of an incision through the left rectus and, after two or two and one-half weeks, an anterior resection of the growth with an end-to-end anastomosis through a low median line incision, and to close the colostomy later. In rectosigmoid growths with involvement of the rectum to a point below the peritoneum, in the bottom of Douglas' culdesac, it is best first to perform a colostomy and after about two weeks to remove the entire rectum, rectosigmoid and a portion of the sigmoid through a posterior (Kraske) incision.

The care of patients after operations for carcinoma of the colon is similar to that described following operations for benign conditions. If a sharp postoperative reaction occurs, the pulse is the best guide to the administration of fluids by mouth. If the pulse diminishes in rate and remains down, water is given by mouth on the fourth or fifth day. Thirst, which is not usually relieved by giving fluids subcutaneously even in large amounts, is the disagreeable part of such postoperative treatment. It is best relieved by stimulating the salivary glands by allowing patients to bite lemon peel, and by having them frequently rinse the mouth with water or orange juice. Parotitis occasionally occurs in patients under such treatment. The prevention of gaseous distension and peristalsis, which is most satisfactorily accomplished by this type of treatment, is of utmost importance in obtaining the greatest immediate postoperative safety.

The operative procedures I have suggested often require more than one operation and necessitate longer periods in the hospital, but they seem justified by their greater safety.

DISCUSSION ON PAPER OF DR. WALTER E. SISTRUNK.

DR. WILLIAM P. HARBIN, Rome, Ga.; We certainly are glad to have Dr. Sistrunk with us today, and I am sure that every

member of the Medical Association of Georgia can say with me that we thank him very much for presenting this paper. The paper was very interesting to me because we have done a few colectomies, enough to be interested in this particular subject.

Dr. Sistrunk referred to diverticulitis. We do not see many of these cases. We have had five cases come in with an abscess on the left side of the abdomen. These were cases in which the patients had diverticulitis followed by an inflammatory condition in the pocket and then by perforation and the formation of an abscess. These were treated as we would treat an abscessed appendix. One of the patients died; the others recovered following incision and drainage. The patient who died lived for about ten days after operation and then developed a septic pneumonia and succumbed.

A while ago when Dr. Davis read his paper one of the physicians in discussing it said that one of his patients who was referred to Dr. Davis died. This was followed by just a little laugh. Any surgeon who has had any experience with colectomies who will tell his experiences might be laughed at, for the mortality rate is high but this is nothing to be ashamed of for there is no help for this hazard. The greatest difficulty in the malignant and benign growths in the patients who come in with acute obstruction is due to the toxic condition above the obstruction. None of us, if we can help it, like to do a two-stage operation but under these circumstances we have to do this. The more operations we do the more we are convinced of this fact. Some years ago I saw a case of intestinal obstruction in the small intestine. The condition in the large intestine is a little bit different when an obstruction occurs, but the case of obstruction in the small intestine leads to the point I wish to make for it is about a similar condition. The patient was a man of about sixty who had not been sick for more than twelve hours. He had fecal vomiting. A simple incision was made and in the search for the collapsed end of the intestine the adhesions were accidentally broken up. These were the only adhesions he had. He was simply subjected to the incision. He was not eviscerated, was not handled, but was simply sewed up. The family was told that it was a perfectly safe case and that the patient could go home very promptly, but the next day when they returned he was dead; the toxic material above obstruction being retained and absorbed caused death.

The point I wish to make is that in any case of obstruction it is absolutely necessary to do an enterostomy and drain the portion of the bowel above the obstruction. I believe it essential to always empty the large

or small intestine, as the case may be, of the toxic contents. We all know that the grave danger in all these cases is due to the toxic material, and these obstructive cases not only have the toxic condition but if there is a complete obstruction they are all dehydrated and many of them are anemic, which adds a very grave complication.

DR. L. W. GROVE, Atlanta, Ga.: As a member of this association, I take this occasion to thank Dr. Sistrunk for making this trip to us and for presenting this very splendid paper. I am sure that I need make no apology, when I say it is always difficult to discuss a paper read by Dr. Sistrunk. This is especially true when discussing conditions of the abdomen.

I think if we have gained anything from Dr. Sistrunk's paper it is that he sounds a note of conservatism. What might be an operable case in the Mayo Clinic in the hands of Dr. Sistrunk and a competent team of operators with us would be very hazardous. I was particularly impressed with his insistence upon conservatism.

As to the diagnosis of these cases, we have had three cases in the last three years which impressed upon us the importance of the careful pre-operative study. We have been much impressed with the value of proctoscopic examination. We have had two cases of diverticulitis that had been studied by our best internal medical men, in which we were able to make the diagnosis by the use of a high sigmoidoscope. This is also true of enemas in the x-ray study.

From Dr. Sistrunk's visit we get much consolation. We have recently had under observation a case of suppurative colitis. The patient had been under the care of medical men and had rapidly gone down. Following the lead of Dr. Sistrunk, we attempted an ileostomy, bearing in mind that we should not attempt a wide incision. We made a small incision and supplemented that by (?) the idea being to rest the gut a little extra time and during that time to irrigate the large bowel. This was done under novocain anesthesia with a small amount of gas. The woman did very well for ten days and then died. Necropsy revealed nothing that could have caused death except the parietic ileus, but in the detailed pathological study by the pathologist some evidences were found of low-grade (chronic pancreatitis, showing that we had a chronic pancreatitis associated with the chronic colitis. The patient had all the treatment we could give, but, as Dr. Sistrunk said, she showed no improvement. As he also said, these patients are so miserable that I do not know what

we can congratulate ourselves on the unhappy outcome.

DR. E. C. DAVIS, Atlanta, Ga.: I think one particular feature has been overlooked, and that is the fact that Dr. Sistrunk is an Alabamian, a graduate of a Southern medical school, and I feel that reflects a great deal of credit upon the South, upon the Southern institution and upon Dr. Sistrunk. I think we should all be very proud of the progress he has made. We have had our share of great men but we must point with particular pride to the men who occupy high positions in all grades of advanced life.

I have been particularly impressed with Dr. Sistrunk's paper for while my experience has been very limited his views have corroborated it. The difficulties of operating in these cases of acute obstruction have been so plain that I have decided that these advanced cases of obstruction are best left to die by natural methods. Any effort to do anything with them has resulted in a mortality under local, gas-oxygen or any other anesthetic, when they have been brought to us after manipulation has occurred.

I, also, was impressed with Dr. Sistrunk's note of conservatism and agree that we should not be too radical. These patients should have both pre and post-operative care. In these cases we have endeavored for a long time not to throw much into the intestine and to give food that will not permit of a residue in the large intestine. We make it a rule in these cases to use normal saline under the skin and to give large amounts because of the dehydration that ensues. We have also used the glucose, either intravenously or by hypodermoclysis, because of the acidosis and in some of the cases we have used insulin, cautiously given. In some instances it has had a very beneficial effect.

I think the keynote of the paper is conservatism and trying to make an early diagnosis in the malignant conditions, when operation offers good results, and to be contented with a two or three-stage operation. When a wide incision in certain localities and certain conditions may be done it is the ideal method, but this is not often the case. A careful, thorough, painstaking x-ray examination before the operation is of the greatest possible assistance in an early diagnosis.

DR. WILLIS B. JONES, Atlanta, Ga.: I, too, have enjoyed Dr. Sistrunk's paper very much. I have thought along the same line but not as fast as he has. I wish to know what is the average duration of life in the cases of malignancy of the colon after operation, taken as a group. Not individually, but as a group.

Another question: within the last few weeks I had a boy about twelve years old who, after a sprint of a few blocks, was seized with a violent pain. He was sent home and a physician was sent for. It was thought that he had the "stomach ache" and the physician advised a dose of salts. This was vomited. Later the family gave a dose of calomel. Later in the evening they sent for another physician and he gave a dose of castor oil. The following morning another cathartic was given, without results. Seventy-two hours later the boy was sent to the hospital with a distinctly palpable mass to the left of the umbilicus. The boy was in shock and there was no question about the intestinal obstruction. I opened the abdomen and found the intestine distended and markedly injected. All I did was to pull out as much of the distended gut as possible, establish a fistula and get him off the table as soon as possible. He reacted well, but two or three days later the abdominal wall became very much inflamed and I was unable to make any topical application which would control this process. I wanted the boy to get as far from shock as possible before I attempted to do any further operating, but instead of the abdomen getting better it grew persistently worse. The pancreatic secretion ate through the abdominal wall, through the skin and other tissues. I got all the information and assistance I could from my fellow physicians but nothing did any good. Finally I had to go in and relieve an intussusception of about eighteen inches. The bowel had already separated, Nature had done the resection. I saw the case would terminate fatally and tried to determine the extent of the intussusception below the duodenum. As well as could determine it was about two and a half feet. I would like to know, if I get a case like this in the future, what I can do to neutralize the pancreatic secretion.

DR. WALTER E. SISTRUNK, Rochester, Minnesota, (closing): I thank the gentlemen for their discussion of the paper. I have enjoyed the discussion very much. In a paper on such a broad subject it is difficult to take into consideration many things which one would like to state. I attempted only to hit the "high spots" and tried to bring out some ideas which I have accumulated from some bitter experiences, and which I think have helped me to diminish my mortality in this work. If I can do nothing more than impress the four points in the beginning of my paper it will be well worth while.

First, the careful pre-operative preparation for it is a great pleasure to operate upon a patient with an empty bowel and when no soiling takes place during the operation.

Second, the very careful selection of cases for operation for surgery of this type is of such nature that unless the patient is having a great deal of trouble he should not be operated. If they can get along well under medical measures it is far better to leave them alone than to have some radical operative procedure on the colon.

Third, the great importance of the two or three-stage operations. The mortality is so high if the one-stage operation is attempted that we should give the patient every possible advantage.

Fourth, the post-operative care, which to me is of great importance. Some of the older men can remember the time when the Alonzo Clark treatment was widely used. This meant stopping the peristalsis by huge doses of opium. The patients were given enough so that the peristalsis was entirely stopped. In the treatment I suggested we accomplish the same thing and I think we avoid the danger of the large doses of morphine. Small doses of codein followed by morphine a little later will stop the peristalsis. If we withhold everything by mouth and feed entirely by rectum we can produce the condition we want, and it is possible for such patients to go for four, five or six days without distension. Then when peristalsis is started the patient has gained the immunity that comes to them after this length of time. In appendicitis, for instance, it has been shown that after five or six days the patients develop an immunity, and it is safer than to wait in operating in certain cases seen 48 to 72 hours after the attack starts until this period of immunity which develops after 5 or 6 days has been reached. There are some objections. Occasionally, a patient will develop a parotitis, but I think the advantages outweigh the disadvantages.

The question of Dr. Jones I can answer in this way: Experience has shown that when the glands are not involved people having an operation for cancer of the large bowel remain well for five years, and few will have a recurrence after that time. If the glands are involved the percentage of 5 year cures is much lower. If none of the cells have entered a vein and been carried into the liver the removal of the glands will often give a good result. We have found about 20 per cent alive after five years.

Sometimes a growth which looks entirely inoperable can be removed and no glands will be found involved. Such cases have an excellent chance. I had a case like this that I operated this year. The patient had been operated twice before but still had a movable tumor. He had known of this tumor for over a year before I advised an operation. I found the tumor attached to the abdominal

wall and I did a two-stage operation. About three weeks later, before the growth had been removed, the man was suddenly seized with intense pain from perforation of the growth but survived the localized peritonitis which developed. The old wound broke open and discharged and later I went ahead and took out a perfectly huge growth which had perforated and was adherent to the abdominal wall. After the removal of the growth we were unable to show any glandular involvement and as no metastases could be found in the liver, I think he has a very fair chance to live five years.

I think one of the things that is largely overlooked in operations for cancer on the colon has been the inflamed condition of the bowel wall. The bowel wall is infiltrated with bacteria of very virulent nature. We learned long ago in operating for ulcerative colitis that the mortality was very high if the bowel was touched. Only within the last year or two have we fully appreciated the need for very little, or no, handling in operating on the colon. If one examines microscopical sections of carcinomas of the colon enormous numbers of streptococci will be found in the bowel wall. Just about the time I recognized this Dr. Maury of New York, who has done a lot of colon work, told me that he had been able to sterilize the colon by injecting gentian violet into it about thirty or forty minutes before operating. He also said they found that very often this dye would come out through the bowel wall. This is true, and what happens is this: when we handle an inflamed piece of bowel the trauma which is produced causes an outflow of the lymph which comes through into the peritoneum. I think a great many people who have died following operations of carcinoma of the colon have died as the result of trauma in handling an infected bowel.

I thank you all for your attention.

THE CORRECTION OF DR. SISTRUNK

During the Atlanta meeting of the Association, Dr. Walter E. Sistrunk, of Rochester, Minnesota, in closing the discussion of his paper on "Surgery of the Colon," was understood by a great many members of the Association to say that "It was best not to operate upon acute appendicitis during the first forty-eight hours, but to wait until the sixth or seventh day, when the patient had developed an immunity against the disease."

In answer to an inquiry, Dr. Sistrunk writes as follows, in regard to this matter:

"I am afraid that I must have been mis-

understood in regard to my remarks concerning acute appendicitis. What I intended to say was, 'We have learned in the treatment of acute appendicitis that in certain cases it is better not to operate after the first forty-eight hours but to wait in such cases until five or seven days have passed at which time the patient has often developed considerable immunity against the infection.' "

We have found that patients operated upon in the presence of a fulminating, spreading type of peritonitis between the forty-eighth hour and the fifth day are done with a tremendous risk and our own experience has been that although the mortality following the treatment of such cases medically is very high, it is less than the surgical mortality and in such cases we often delay operating until the fifth, sixth or seventh day.

The medical treatment consists of withholding everything by mouth and rectum and by giving about 2500 c.c. of salt solution subcutaneously every twenty-four hours and administering morphin very freely. Large hot compresses are applied to the abdomen at frequent intervals and when the pulse drops and remains down for twenty-four or thirty-six hours, which is usually about the fifth or sixth day, we operate irregardless of the temperature. In such patients who are being treated medically who tend to grow worse instead of better, it is possible occasionally to make a small wound under local anesthesia in the midline anteriorly for the purpose of draining off the fluid which accumulates within the abdominal cavity. In such cases a large gauze wick is inserted through a glass tube and the dressings are changed at hourly intervals in order to cause a large amount of fluid to drain from the peritoneal cavity.

In my own opinion most patients with acute appendicitis should be operated upon when seen, but experience shows that a small group of people with diffuse peritonitis who are operated upon between the forty-eighth hour and the fifth day are done with a tremendous mortality."

Come to
ALBANY
Annual Meeting
May 12, 13, 14, 1926

A NEW AND RAPID METHOD OF BLOOD TRANSFUSION*

Walter A. Norton, M.D.,

Savannah

Dr. G. N. Stewart made this statement at the Chicago meeting of the American College of Surgeons in 1923: "Most patients have a stock of four or five litres of blood, and may lose many cubic centimeters with impunity." On the other hand he further stated that some patients may not possess a total stock of twenty cubic centimeters and cannot lose many drops without detriment.

This being so, blood transfusion is important and indispensable. It has no rival in adding fluids to the blood. It has the great virtue of adding erythrocytes to the depleted circulation, it carries oxygen to the tissues.

More than a year ago, during a series of experiments in my office, I learned that sodium iodide, added to human blood, will retard clotting for a period of time ranging from five minutes to an hour and a half. I immediately determined to try it in blood transfusion, and I did it with complete success.

My preliminary report was published in the July, 1924 issue of *Surgery, Gynecology and Obstetrics*. Since that time I have performed twelve blood-transfusions by this method, and Dr. James N. Carter of Savannah has used the method twice with complete satisfaction.

This is the method. You need only a sterile Luer syringe (size marked 200 mill.), two 31 gr. ampoules of sodium iodide, a little sterile mineral oil to lubricate the plunger of the syringe, and a few drops of iodine. Boil Luer syringe, and while still hot draw into it one ampoule of sodium iodide, plunge needle into median basilic vein of donor, and withdraw enough blood to half fill the syringe. Disconnect syringe from needle, place gloved index finger over opening in syringe, and shake vigorously for a few seconds, reconnect with needle and withdraw blood until syringe is full. (This syringe when full actually contains 300 mill. of blood, tho the markings go only to 200

mill.) The syringe is then shaken again and plunged directly into the vein of the recipient and emptied. I use a rotary movement with the plunger to facilitate the expulsion of the blood from the syringe. If you need more blood for your patient you may repeat the process immediately, using a second ampoule of sodium iodide.

This method has two advantages over the sodium citrate method. The blood is never exposed to the air, and the time necessary is reduced to a minimum. If the patients have even fairly good sized veins the transfusion can be effected in five minutes.

FURUNCLE OF THE NOSE

Thomas J. Harris, New York (*Journal A. M. A.*, Dec. 19, 1925), reports a case of furuncle of the nose resulting in septicemia, which was treated successfully by injections of mercurochrome. This case is instructive on a number of accounts. First, because of the etiology—an innocent appearing pimple in the nose of a healthy young girl following an incision on the third day gave rise to a swelling extended to the cheek and eye, accompanied by high fever. There were numerous foci of suppuration with staphylococcus infection of the blood, septic pneumonia and endocarditis, with recovery at the end of two months. Except for the fortunate recovery, the history of the case is not unusual. In the judgment of all who observed the case, the final recovery was due to the use of mercurochrome-220 soluble, 5 mg. per kilogram of the body weight in a 1 per cent. solution, as recommended by Young. In all, four injections were given, none of them followed by any untoward results. In spite of the fact that there are cases on record of acute nephritis following its use, any unqualified statement that the cure was due to the mercurochrome cannot be made because of the fact that the patient had two transfusions. However, Harris strongly recommends its use under similar circumstances.

Please Mention

*The Journal of the Medical
Association of Georgia
when writing to advertisers.*

*Read before the Medical Association of Georgia, Atlanta, May 14, 1925.

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Profession of Georgia.

65 Forrest Ave., Atlanta, Ga.

APRIL, 1926

ALLEN H. BUNCE, M. D., Editor

Publication Committee

CHAS. USHER, M. D.

S. J. LEWIS, M. D.

T. C. THOMPSON, M. D.

Articles are accepted for publication on condition that they are contributed solely to this Journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Reprints should be ordered within 30 days after the appearance of an article, since all type will be destroyed at the end of that time.

Editorial Department

PUBLIC MEDICAL EXHIBIT

The medical exhibit held by the College of Medicine of the University of Cincinnati in conjunction with the Public Health Federation represented a step in the direction of giving to the public instruction in present methods of medical education and information relative to public health.

The exhibit was held in the medical school building daily, from February 16th to 22nd, inclusive, and was divided into two parts: one consisted in opening the entire medical building to the public, with suitable displays and arrangements to demonstrate how the various subjects of the medical school are approached; the other consisted of lectures and demonstrations given in the layman's language. These lectures were for the purpose of giving the public some knowledge of the preparation which the student receives before he begins practice; and every department of the medical school had prepared an exhibit illustrating what the student met with in that given department.

In Pathology, there were gross and microscopic preparations illustrative of a number

of diseased conditions found in various parts of the body; such as, pulmonary tuberculosis, pneumonia, typhoid, ulcers of the intestine, and other conditions concerning which the public have some general acquaintance but no special knowledge. The microscopic preparations were arranged under microscopes which were labelled to indicate the subject being presented. There was a demonstrator (a senior medical student) present, who answered any questions which might be asked, and also demonstrated the gross specimens.

In Bacteriology, there were displayed cultures of growing organisms, preparations showing the lesion produced in the human being, and stained smears giving the microscopic picture. This too, like all other department exhibits, was under the charge of a senior student demonstrator.

In the department of Physiology, an excellent exhibit had been prepared, showing the various forms of food, and indicating their caloric content, the proportion of protein, fat, and carbohydrate, and also the quantity of each individual food required to give a day's nourishment. This exhibit included foods of all kinds—meats, cereals, fruits, vegetables, etc. It also included apparatus which was set up to demonstrate the action of various viscera.

A similar exhibit was prepared in the department of Physiological Chemistry where various excreta were displayed and their quantity and qualitative elements shown, together with some variations which are met with in disease. This exhibit also contained apparatus which is used in the study of different fluids and excreta. All of the fundamental subjects were treated in a similar fashion, and the exhibits were remarkable for their detail and the clearness with which they presented their subject matter for lay understanding. They showed long and thorough preparation and co-operation which must have been indeed gratifying.

In the clinical departments, there were exhibits which illustrated some of the clinical subjects. For example, there was an operating room completely set up with equipment for the sterilization of instruments and dressing materials. One room was completely equipped for radiographic examination. There was also in this room a large battery of view-

boxes where were demonstrated the X-ray pictures of pathological conditions. A large number of free X-ray examinations of the chest were done for visitors to the exhibit. Still another exhibit showed the different forms of apparatus for light and electrotherapy.

In the anatomical museum were on display numerous wax and other models, showing the anatomy of the entire body, including the more intricate and delicate anatomy of the eye and ear. In this same department were many X-ray films showing osseous relations. One interesting exhibit showed various foreign bodies which had been recovered from the respiratory tract and X-ray pictures of these foreign bodies in situ.

The second part of the exhibit—that which was composed of lectures and demonstrations concerned with the more common diseases and conditions which attack the human individual—was held each afternoon and evening. It dealt with all phases of medicine and surgery. One afternoon consisted of lectures on the eye: its functions, its commoner diseases, disturbances in vision and their relation to the general well-being of the individual, with especial emphasis on the relation to children and effect upon their physical and mental development. The same was done in regard to diseases of the ear, nose, and throat. Many slides were presented to show the anatomy of the nasal cavities and how pathological variations produce obstruction. There were also slides illustrating hypertrophy of the adenoid tissues of the pharynx with pictures of the adenoid facies. It was pointed out that these conditions could be either prevented or eliminated, and the child, or even the adult given an opportunity to develop along normal lines. On the same afternoon, there was shown a motion picture of the progress of the medical student during the years of his education, through his interne year, and final departure from the hospital with his boston-bag to begin practice. Different afternoons and evenings were devoted to different things and there was one special lecture to men and one to women. All of these lectures were so well attended that many had to be turned away.

This exhibit was of especial value because it not only showed the keen interest which the public has in medicine, public health, and

medical education, but it proved that it is possible to demonstrate and tell the public the things it wishes to know in a way that can be understood.

RUSSELL H. OPPENHEIMER.

THE INFLUENCE OF FOCAL INFECTIONS

Notwithstanding that this paper by Dr. D. J. McCarthy, Philadelphia (Journal A. M. A., Dec. 19, 1925), is the result of a careful analysis of 500 of his own cases, all studied in detail by one clinician, the opinions in reference to the influence of the focal infections, even in this group, are the impressions made on him by the results obtained in treatment, and, he says, are by no means facts, or to be taken as complete conclusive evidence of the direct causative relationship of focal infections to nervous or mental disease. McCarthy lays it down as a fundamental principle of therapeutics in mental and nervous diseases that, unless one has a definite theory of disease to work on, one need not expect results; to treat a mental state by drugs or psychotherapy, is to do little less than the Christian scientist would do in the same cases. He holds that a man or woman who was sane, had always been sane up to one month ago and is now insane, so insane, indeed, that he or she is in grave danger of confinement to an insane asylum, must have some real cause for this condition, and that this cause must be a definite chemical poisoning, either bacterial or visceral in nature. Focal infections in the upper respiratory tract are present in a sufficiently large percentage of cases of the psychoses and neuroses to warrant the assumption of a casual relationship between the focal infections and the disease conditions of the nervous system. Focal infections of and by themselves are probably the cause of the psychotic or psychoneurotic condition in only a relatively small percentage of cases. In the vast majority of cases, the focal infections process acts on an already existing condition of undernutrition, anemia, endocrine imbalance, etc. Focal infections appear to produce much more marked nervous symptoms and to produce them with greater frequency in individuals with arterial hypotension than in those with normal blood pressure or an arterial hypertension. This is, in all probability, an endocrine reaction.

CARBON DIOXID AS AN AID IN GENERAL ANESTHESIA

Personal experience has convinced John S. Lundy, Rochester, Minn. (Journal A. M. A., Dec. 19, 1925), that carbon dioxide in moderate concentration assists in producing anesthesia, rendering the anesthetic apparently safer and easier to administer. Carbon dioxide should be used in such concentrations as will produce optimal results, and these vary with the individual and the type and stage of the operation. Too much carbon dioxide is worse than none, and care should be exercised to prevent more than 5 per cent. being used.

E. E. Murphey	Augusta
B. C. Teasley	Hartwell

To Visit Alabama:

J. M. Anderson Columbus
J. W. Landham Atlanta

To Visit Tennessee:

H. L. Erwin Dalton
J. H. Hammond LaFayette

To Visit North Carolina:

J. H. Downey Gainesville
C. L. Ayers Toccoa

ANNOUNCEMENTS

Meetings will be held in the *City Auditorium*.

Be sure to go to the Registration Desk, present your 1926 card and procure a badge immediately on your arrival.

Discussion of papers is open to all members and guests of the Association. It is not limited to those named on the program.

On arising to discuss a paper the speaker will please announce his name and address clearly for the benefit of the Association and stenographer.

Sessions will be called to order at the hour fixed on the program. It is especially desired that the members be prompt in their attendance.

All manuscript should be typewritten, double spaced and on one side of the paper only. Papers must be handed to the Secretary immediately after being read.

IMPORTANT NOTICE!

Delegates must present written credentials to the Committee on Credentials from the House of Delegates to secure Delegates Badges.

Members may not take part in the proceedings until they have registered and procured official badges.

PUBLIC MEETINGS

Wednesday, May 12, 10:00 A.M.

Opening Session

The session on Wednesday morning will be open to the public. All visitors are cordially invited.

Thursday, May 13, 12:00 Noon

President's Address

The President's address will be at an open session to which the public and visitors are invited.

ENTERTAINMENTS

Wednesday, May 12, 9:30 P.M.

Smoker for those interested in Pediatrics by the Georgia Pediatric Society.

Thursday, May 13

Banquet at 7:00 P.M. All members and guests must wear badges. Your badge will constitute your "admission ticket." Toastmaster, M. A. Clark.

Presentation of "Badge of Service" to the President, Frank K. Boland, by J. W. Palmer.

9:30 P.M., Dance.

SPECIAL MEETINGS**Meeting of Secretaries of District and County Societies**

Round table conference of the Secretaries of District and County Societies, Thursday, May 13, 5:30 P.M. in House of Delegates' room, City Auditorium. All Secretaries of District and County Societies are expected to be present. Each one will be called upon for a report of conditions in his Society and suggestions for improvement of the organization. The President, members of the Council and all general officers of the Association will be present.

Meeting of the Council

The first meeting of the Council will be held in the House of Delegates' room, City Auditorium, Tuesday, May 11, at 5:00 P.M. Each Councilor will render a written report of conditions in each county in his District. Other meetings of the Council will be held on the call of the Chairman.

Meetings of the House of Delegates

Tuesday, May 11, 7:30 P.M.

First meeting of the House of Delegates.

1. Call to order by the President.
2. Roll Call.
3. Report of officers.
4. Report of Council by the Chairman.
5. Report of Committees.
 - a. Scientific Work.
 - b. Public Policy and Legislation.
 - c. Arrangements.
 - d. Medical Defense.
 - e. Hospitals.
 - f. Necrology.
 - g. Health and Public Instruction.
 - h. Cancer Commission.
 - i. National Defense.
6. Report of Delegates to the A. M. A.
7. Unfinished business.
8. New business.

Wednesday, May 12, 8:00 A.M.

Second meeting of the House of Delegates.

1. Call to order by the President.
2. Reading of minutes.
3. Reports of Committees, continued.
4. Unfinished business.
5. New business.

Thursday, May 13, 8:00 A.M.

Third meeting of the House of Delegates.

1. Call to order by the President.
2. Reading of minutes.
3. Reports of Committees, continued.
4. Unfinished business.
5. New business.

PROGRAM

The papers for each session shall be taken up as scheduled on program and each session must be completed before taking up the next session.

WEDNESDAY, MAY 12

10:00 A.M.

Meeting called to order by Frank K. Boland, Atlanta, President of the Association.

Invocation**Address of Welcome**

A. H. Hilsman Albany

Response to Address of Welcome

John M. Poer West Point

Scientific Papers

1. The Physician as A Citizen.
J. H. Baxter, Ashburn.
To lead in discussion:
E. C. Thrash, Atlanta.
J. H. Downey, Gainesville.
2. Sanitation Problems of Small Cities.
J. W. Chambliss, Americus.
To lead in discussion:
T. F. Abercrombie, Atlanta.
J. A. Thrash, Columbus.
3. Peculiarities of Human Behavior.
N. M. Owensby, Atlanta.
To lead in discussion:
J. H. Butler, Augusta.
S. T. R. Revell, Louisville.
4. Some Newer Aspects of Feeble-Mindedness.
Geo. L. Echols, Milledgeville.
To lead in discussion:
J. N. Brawer, Atlanta.
H. D. Allen, Milledgeville.
5. Basal Metabolism in Amyotonia Congenita.
E. Bates Block, Atlanta.
To lead in discussion:
R. C. Swint, Milledgeville.
W. J. Cranston, Augusta.
6. Report of a Few Cases Illustrating the Fallacy of Indigestion as a Diagnosis.

- J. C. Patterson, Cuthbert.
 To lead in discussion:
 W. H. Myers, Savannah.
 J. E. Paullin, Atlanta.

WEDNESDAY**2:30 P.M.**

7. The Importance of Child Welfare Work to a Community.
 Linton Gerdine, Athens.
 To lead in discussion:
 B. W. Carey, Athens.
 M. M. McCord, Rome.
8. Infant Feeding.
 R. G. McAiley, Atlanta.
 To lead in discussion:
 R. L. Miller, Waynesboro.
 M. Hines Roberts, Atlanta.
9. Adenoids and Tonsils in Childhood—a Plea for Conservation.
 A. J. Waring, Savannah.
 To lead in discussion:
 W. C. Lyle, Atlanta.
 W. E. McCurry, Hartwell.
10. Toxin-Antitoxin.
 Benjamin Bashinski, Macon.
 To lead in discussion:
 Hinton J. Baker, Augusta.
 Mercer Blanchard, Columbus.
11. Modern Conception of the Infectivity of Contagious Diseases.
 Paul Eaton, Augusta.
 To lead in discussion:
 J. P. Bowdoin, Adairsville.
 T. Bolling Gay, Athens.
12. The Use of Dextrose for Children, and a Pleasant Method of Administration.
 W. L. Funkhouser, Atlanta.
 To lead in discussion:
 R. C. Maddox, Rome.
 J. F. Mixson, Valdosta.
13. General Practitioner vs. The Specialist.
 J. A. Ward, Cordele.
 To lead in discussion:
 V. O. Harvard, Arabi.
 R. F. Wheat, Bainbridge.

WEDNESDAY**7:30 P.M.**

14. Basal Metabolism Rate in Toxic Goiter: Lantern Slide Demonstration.
 T. C. & H. M. Davison, Atlanta.
 To lead in discussion:
 C. C. Hinton, Macon.
 A. G. Little, Valdosta.
15. Certain Problems in the Early Diagnosis of Cancer of the Mouth Region.
 F. M. Johnson, Atlanta.
 To lead in discussion:
 A. R. Rozar, Macon.
 J. L. Campbell, Atlanta.
16. The Painful Heel.
 Theodore Toepel, Atlanta.
 To lead in discussion:
 Henry M. Michel, Augusta.
 Wm. A. Newman, Macon.
17. Radium Treatment for Cancer of the Cervix: Report of Cases—Lantern Slides.
 O. D. Hall, Atlanta.
 To lead in discussion:
 R. W. Richardson, Macon.
 L. D. Parry, Thomasville.
18. Surgical Correction of Facial Deformities: Lantern Slides.
 E. D. Highsmith, Atlanta.
 To lead in discussion:
 R. L. Rhodes, Augusta.
 O. H. Weaver, Macon.

THURSDAY**9:00 A.M.**

19. Endemic Typhus Fever.
 V. P. Sydenstricker, Augusta.

- To lead in discussion:
 V. H. Bassett, Savannah.
 F. M. Martin, Shellman.

20. The Diagnosis and Treatment of Tropical Sprue.
 R. S. Leadingham, Emory University.
 To lead in discussion:
 W. H. Lewis, Rome.
 J. C. Metts, Augusta.

Specific Treatment of Malaria.

Chas. C. Bass, New Orleans,
 Dean, Tulane University, of
 Louisiana School of Medicine,
 New Orleans. Invited guest of
 the Association.

21. Cacodylate of Soda in Malaria.
 Eugene E. Murphey, Augusta.
 To lead in discussion:
 C. W. Findley, Vidalia.
 J. W. Daniel, Savannah.
22. Unusual Manifestations of Chronic Malarial Infections.
 Lewis M. Gaines, Atlanta.
 To lead in discussion:
 J. O. Elrod, Forsyth.
 J. W. Simmons, Brunswick.

PRESIDENT'S ADDRESS AT NOON THURSDAY, MAY 13.**THURSDAY****2:30 P.M.**

23. Conjunctivitis Tularensis: Case Report.
 Zach W. Jackson, Atlanta.
 To lead in discussion:
 T. H. Smith, Valdosta.
 R. T. Dorsey, Atlanta.
24. Some Personal Observations in Reference to Deafness.
 Dunbar Roy, Atlanta.
 To lead in discussion:
 G. H. Lang, Savannah.
 B. H. Minchew, Waycross.
25. Chronic Endocervicitis and Its Treatment.
 Chas. H. Richardson, Jr., Macon.
 To lead in discussion:
 C. H. Watt, Thomasville.
 Cleveland Thompson, Millen.
26. The Surgical Clearing House.
 E. C. Davis, Atlanta.
 To lead in discussion:
 K. McCullough, Waycross.
 J. M. Barnett, Albany.
27. Some Essentials in Good Surgical Practice.
 Ralph H. Chaney, Augusta.
 To lead in discussion:
 A. D. Little, Thomasville.
 T. P. Waring, Savannah.
28. Discussions of Problems Met with in the Operative Technique and Post Operative Management of the Acute Abdomen.
 L. W. Grove, Atlanta.
 To lead in discussion:
 S. D. Brown, Royston.
 G. W. Quillian, Atlanta.
29. Gall Bladder Surgery with Reference to the Unrelieved Cases.
 R. M. Harbin, Rome.
 To lead in discussion:
 Wm. H. Goodrich, Augusta.
 W. W. Battey, Jr., Augusta.

FRIDAY**9:00 A.M.**

30. Lung Disturbances from Heart Disease.
 Stewart R. Roberts, Atlanta.
 and
 J. A. McGarity, Atlanta.
 To lead in discussion:
 J. D. Gray, Augusta.
 Wm. R. Dancy, Savannah.
31. Clinical Results Attained in Five Thousand Non-

Surgical Gall-Tract Drainages.

Geo. M. Niles, Atlanta.

To lead in discussion:

Trammell Starr, Dalton.

G. O. Wheelchel, Athens.

Low Carbohydrate Relatively High Fat and Rich Vitamine Diet in the Treatment of Gastric and Duodenal Ulcer.

Seale Harris, Past-President,

Southern Medical Association,

Birmingham, Alabama.

Invited Guest of Association.

32. The Treatment of Diabetic Coma.

Thos. E. Rogers, Macon.

To lead in discussion:

Guy J. Dillard, Columbus.

J. A. Redfearn, Albany.

33. Classification of Thyroid Diseases, Treatment and End Results.

T. C. Thompson, Vidalia.

To lead in discussion:

T. J. McArthur, Cordele.

J. W. Palmer, Ailey.

34. Types of Gastric and Duodenal Ulcer and Their Management.

John B. Fitts, Atlanta.

To lead in discussion:

Roy A. Hill, Thomasville.

T. B. King, Sandersville.

35. Prostratic Surgery.

J. W. Shearouse, Savannah.

To lead in discussion:

H. M. Fullilove, Athens.

Hugh N. Page, Augusta.

36. Stricture of the Urethra.

W. P. Jordan, Columbus.

To lead in discussion:

A. J. Mooney, Statesboro.

J. Righton Robertson, Augusta.

ELECTION OF OFFICERS

President.

First Vice-President.

Second Vice-President.

Delegates to A. M. A.

Alternates.

Councilors for the Ninth, Tenth, Eleventh and Twelfth Districts.

Selection of meeting place for 1927.

FRIDAY

3:00 P.M.

Meeting of Council for purpose of organization and outlining work for ensuing year.

Miscellaneous

Constitution and By-Laws

Section 1. No address or paper before the Association shall occupy more than fifteen minutes in its delivery; and no member shall speak longer than five minutes, nor more than once on any one subject, except by unanimous consent.

Section 2. All papers read before the Association, or any of the sections, shall become its property. Each paper shall be deposited with the Secretary when read.

Section 3. The deliberations of this Association shall be governed by parliamentary usage as contained in Roberts' Rules of order, when not in conflict with this Constitution and By-Laws.

No miscellaneous or business matters will be discussed before the scientific session, but will be referred to the House of Delegates.

RESOLUTION ADOPTED 1921

Resolved, That a member who sends in a title of a paper to be placed on the program and is not present to read the paper shall pay the penalty of not having an opportunity to appear on the program for two years, unless he presents an excuse acceptable to the Committee on Scientific Work.

W. A. Mulherin, Chairman,

Frank Bird,

A. H. Bunce,

Committee on Scientific Work.

GEORGIA STATE ASSOCIATION OF GRADUATE NURSES

The Georgia State Association of Graduate Nurses has recently lost two of its loved and valued members by death.

On February 11th Miss Marcia Estelle Daughtry of Atlanta, Ga. She was a graduate of Grady Hospital Training School for Nurses, class of 1901. Many of the Doctors of Georgia will remember her in her years of service at the College of Physicians and Surgeons.

Her twenty-five years of useful, unselfish service and her example to hundreds of other nurses will be a lasting monument to her memory.

On February 13th, in Savannah, Ga., after a short illness of pneumonia, Mrs. Effie Reese Wheatley. Mrs. Wheatley was a graduate of Park View Sanitarium Training School for Nurses, class of 1914, Savannah, Ga. For the past eight years she had charge of the vital statistics records of the Health Department of Savannah and was beloved and valued by doctors, nurses and the public.

The many friends of Miss Alberta Williams Dozier, known and loved by doctors, nurses and patients during her many years of service as Superintendent of Nurses of Wesley Memorial Hospital will be pleased to learn of her marriage on February 21st to Mr. John Berry Williamson of Ellaville, Ga.

The Isabel Hampton Robb Memorial Fund of the American Nurses' Association announces Five Scholarships of \$250 each for the year 1926-27 to nurse candidates who desire to prepare for educational or administrative work in schools of nursing or in public health. For further particulars address Nursing Headquarters, 41 Forrest Ave., Atlanta, Ga.

Atlantic City will see the largest gathering of Public Health Workers ever held in this country when the first American Health Congress opens May 17th.

The State and Provincial Health Officers will meet May 21st and 22d. Dr. Walter M. Diekey of California, will speak on the Plague condition in California. The American Nurses' Association, the National League of Nursing Education and the National Organization of Public Health Nursing will make up a large part of the congress, "The Newer Developments in Adult Education, and what this means to the Nurse" will have special significance from educators, doctors and nurses. Craig Hall is Headquarters for Georgia. The membership of the State Nurses' Association entitles Georgia to eleven electoral votes.

District and County Societies

District Editors

- | | |
|---------------------------------|-------------------------------|
| 1. McGee, H. H., Savannah. | 7. McCord, M. M., Rome. |
| 2. Watt, C. H., Thomasville. | 8. Carter, D. M., Madison. |
| 3. Greer, Chas. A., Oglethorpe. | 9. Bennett, J. C., Jefferson. |
| 4. Williams, O. O., West Point. | 10. Lee, F. Lansing, Augusta. |
| 5. Fitts, Jno. B., Atlanta. | 11. Mixson, W. D., Waycross. |
| 6. Thompson, O. R., Macon. | 12. Cheek, O. H., Dublin. |

1926 HONOR ROLL

The following is a list of counties 100 per cent in membership for 1926. The date on which each became a 100 per cent society appears after the name of the society, together with the name of the secretary:

1. Randolph County, Dr. G. Y. Moore, Cuthbert, November 5, 1925.
2. Warren County, Dr. Robert C. McGahee, Warrenton, December 22, 1925.
3. Dougherty County, Dr. Albert S. Bacon, Albany, January 4, 1926.
4. Upson County, Dr. H. A. Barron, Thomaston, January 7, 1926.
5. Lamar County, Dr. John M. Anderson, Barnesville, January 21, 1926.
6. Crisp County, Dr. J. N. Dorminy, Cordele, February 4, 1926.
7. Evans County, Dr. D. S. Clanton, Hagan, February 13, 1926.
8. Stephens County, Dr. C. L. Ayers, Toccoa, March 12, 1926.
9. Emanuel County, Dr. R. C. Franklin, Swainsboro, March 20, 1926.
10. Turner County, Dr. J. H. Baxter, Ashburn, March 31, 1926.

FULTON COUNTY MEDICAL SOCIETY

A very interesting meeting of this Society was held at the Academy of Medicine, 32 Howard St., Atlanta, Ga., Thursday evening, Feb. 18th. Dr. J. L. Campbell presided and there were 78 present.

Dr. Joseph Yampolsky presented a patient with "Celiac Disease Treated with Banana Diet," which was discussed by Dr. M. T. Benson. A case report "Pernicious Malaria with Rare Complications" was given by Dr. W. K. Stillman, and discussed by Dr. Shanks.

Dr. E. D. Highsmith gave a clinical talk on a "New Technique of Covering Raw Surfaces," illustrated with lantern slides. A clinical talk was also given by Dr. Garnett Quillian on "Total Absence of a Vagina, Operation for same: Preliminary Report." This was discussed by Drs. J. T. Brice, Dan Y. Sage and Dr. J. C. Avary. The paper of

the evening was read by Dr. James E. Paulin on "Glucose Utilization in Cases of Renal Glycosuria." Discussion of this paper was by Dr. George Bachmann and Dr. Holtz.

Another regular meeting of this Society was held, Thursday evening, March 4th, at the Academy of Medicine, 32 Howard St., Atlanta, Ga. The President, Dr. J. L. Campbell, presided and there were 84 members present.

A case report "Pyorrhea Alveolaris" was presented by Dr. Robin Adair and Dr. E. H. Greene reported an interesting case of "Cardiac Stimulation by Massage and Adrenalin, for Suspended Animation." This was discussed by Drs. Geo. Fuller, E. D. Shanks and L. S. Patton. "Some Observations on Furunculosis of the Auditory Canal" was the title of a paper read by Dr. Dunbar Roy, discussion of this paper was by Dr. Calhoun McDougall, Dr. E. S. Colvin, Dr. H. F. McDuffie, Dr. Jones, and Dr. Arch Avary.

After reports of committees and announcements were made, the motion was in order to adjourn.

Respectfully submitted,

GRADY E. CLAY,
Secretary-Treasurer.

NINTH DISTRICT MEDICAL SOCIETY HOLDS AN INTERESTING MEETING AT GAINESVILLE

The 35th semi-annual session of the Ninth District Medical Society met in the Community House, at Gainesville, Wednesday, March 17, at 11 a.m. and was called to order by Dr. Edson W. Glidden, acting president. The Invocation was offered by Rev. W. P. King, the able pastor of the First M. E. Church. Words of welcome were spoken by Dr. J. B. Rudolph, response by Dr. P. Y. Duckett.

Two letters were read from Dr. Frank K. Boland, State President; one to our councilor, expressing his regrets he could not be present; and the other to our secretary with reference to the unveiling of the statue of Crawford W. Long, in the Hall of fame, March 30, 1926.

Dr. Glidden opened with a splendid address, and spoke especially of our Sanatorium at Alto, of which he is the Superintendent.

Cancer of the Pelvic Viscera was ably discussed by Dr. Garnett W. Quillian, of Atlanta. It was considered in all its phases, its causes and its treatment. An early diagnosis important. This was Dr. Quillian's first appearance before our society, and his paper and discussions were appreciated. Gainesville was formerly his home, and he has an aunt living here whom he called upon.

Diagnosis of Typhoid Fever was brought to us by Dr. L. G. Neal. He showed a thorough knowledge of his subject.

Diseases of the Nasal Sinii in Children was Dr. C. G. Butler's subject, which was very interesting.

Dr. Walter W. Benton was on the Development of Surgical Anesthesia, and a most elaborate paper indeed. Spoke of the Soporifics used in the days B. C. Discussed the discoveries of Chloroform, Nitrous Oxide Gas, Ether and Ethylene Oxygen. Proper credit was given to Dr. Crawford W. Long, as the first to discover Ether Anesthesia, and some of the things that had been done in his honor. Following this was an eloquent address from Dr. L. G. Hardman, on the line of an address he delivered at Athens last June. Special credit was given to Dr. L. A. Dugas as a pioneer in Surgery and the use of anesthetics. Of course Dr. Long was considered as entitled to the honor of first discovering Ether for this purpose. In a modest way, and without a personal reference, spoke of a demonstration he gave at Commerce, at our meeting in September, 1922, when a solution of Cannabis Indica was intravenously injected into a dog, he became insensible for two hours and then came around all right. Dr. Hardman will speak for the Georgia Medical Association at Washington, D. C. March 30th. On motion, the paper of Dr. Benton will be furnished the editor of our state Journal, with request to publish.

Dr. James H. Downey, referred to as the Nestor of the Ninth district doctors, was next presented. He showed several apparati for use in different fractures, also X-ray pictures of some of his cases. Dr. Downey is the chief surgeon of the Hospital here that bears his name.

Adjournment for dinner at the Hotel Princeton.

Dr. Joe P. Bowdoin and Dr. E. M. Winchester represented the State Board of Health. We were glad to have them. Dr. Bowdoin has been in our meetings several times heretofore, but this was Dr. Winchester's first visit.

Dr. C. W. Roberts, of Atlanta, spoke on the Interpretation of Abdominal Pain. He spoke without manuscript, and covered his subject in a most thorough and interesting manner. He has been with us before and we are always glad to have him, as well as all the other visitors mentioned above.

Dr. Bradley B. Davis brought us the subject of Hemorrhage of the New Born. He showed an exhaustive study of same.

The hour was getting late, and the last essayist on our program, Dr. L. W. Hodges, subject Blepharitis Marginalis, was excused till our meeting in September.

Dr. Glidden was elected president for the ensuing year; Dr. Chas. B. Almond, vice-president. Hoschton, Jackson county selected for next place of meeting.

Mrs. Dr. Downey, who heads the Ladies Auxilliary in the Ninth District had sent out several letters, and many of the ladies of the district were present.

This was one of the most interesting meetings we have ever held, and perhaps the most largely attended, about fifty doctors being present.

We were mighty glad to have Dr. E. C. Thrash, an ex-president with us. He entered heartily into the discussions, and would have been on the program had he answered an invitation in time.

JESSE C. BENNETT, M. D.,
Secretary, Jefferson, Ga.

PROGRAM MUSCOGEE COUNTY MEDICAL SOCIETY, 1926

Dr. Francis B. Blackmar, Pres.

Dr. A. N. Dykes, Vice-Pres.

Dr. Guy J. Dillard, Sec'y & Treas.

March 4

Business.

"Fundamentals of Electrotherapeutics"—

Dr. J. A. Thrash.

"Proven Values of Electrotherapeutics with a Review of the Literature"—Dr. W. F. Jenkins.

Discussion opened by Dr. G. S. Murray.

June 3

Business.

"Back Pain as Related to Gynecology"—
Dr. G. S. Murray.

Discussion opened by Dr. J. H. Pennington.

"Puerperal Sepsis"—Dr. J. H. McDuffie, Jr.

Discussion opened by Dr. J. C. Wooldrige.

July 1

Business.

"Thirty-eight Years of General Practice"—
—Dr. J. H. McDuffie, Sr.

"Edema in Pregnancy"—Dr. J. C. Wooldrige.

Discussion opened by Dr. J. H. Johnson.

"Differential Diagnosis of Early Pulmonary Tuberculosis"—Dr. J. M. Anderson.

Discussion opened by Dr. W. F. Jenkins.

August 5

Business.

"Diagnosis and Treatment of Acute Nephritis"—Dr. C. D. Johnson.

Discussion opened by Dr. G. J. Dillard.

"Diseases of the Thyroid"—Dr. J. H. Pennington.

Discussion opened by Dr. W. L. Cooke.

September 2

Business.

"Significance of Acute Abdominal Pain"—
—Dr. Mercer Blanchard.

Discussion opened by Dr. F. P. Norman.

"Malaria in Children"—Dr. F. P. Norman.

Discussion opened by Dr. Mercer Blanchard.

October 1

Business.

"The Use of Mercurochrome"—Dr. W. P. Jordan.

"Mercurochrome in Pyogenic Infections"—
—Major Cord.

"Diagnosis and Treatment of Sinusitis"—
—Dr. F. B. Blackmar.

Discussion opened by Dr. C. A. Peacock.

November 4

Business.

"Cardiac Arrhythmias"—Dr. G. J. Dillard.

Discussion opened by Dr. J. A. Thrash.

"Treatment of Pneumonia in Children"—
—Dr. Mercer Blanchard.

Discussion opened by Dr. F. P. Norman.

December 2

Election of Officers for 1927.

MARRIAGES

Dr. D. W. F. Maloy and Miss Clara Janett Bullington, both of Milan, were married Monday, February 22, 1926. Dr. Maloy is a member of the Telfair County Medical Society and the Medical Association of Georgia. He is engaged in the general practice of medicine at Milan.

COUNTY SOCIETIES REPORTING FOR 1926**Stephens County Medical Society—100%**

The Stephens County Medical Society announces the following officers for 1926:

President—W. M. Fresh, Toccoa.

Vice-President—E. F. Chaffin, Toccoa.

Secretary-Treasurer—C. L. Ayers, Toccoa.

Delegate—C. L. Ayers, Toccoa.

Alternate—J. E. D. Isbell, Toccoa.

Board of Censors—E. F. Chaffin, J. H. Terrell, J. E. D. Isbell.

Dooly County Medical Society

The Dooly County Medical Society announces the following officers for 1926:

President—E. B. Davis, Byromville.

Vice-President—L. H. Bishop, Unadilla.

Secretary-Treasurer—F. E. Williams, Vienna.

Delegate—J. L. Lee, Pinehurst.

Alternate—H. H. Shipp, Vienna.

Hart County Medical Society

The Hart County Medical Society announces the following officers for 1926:

President—Geo. S. Clark, Hartwell.

Vice-President—J. I. Jenkins, Bowman.

Secretary-Treasurer—A. O. Meredith, Hartwell.

Delegate—B. C. Teasley, Hartwell.

Alternate—W. E. McCurry, Hartwell.

Board of Censors—W. E. McCurry, Geo. S. Clark, B. C. Teasley.

Toombs County Medical Society

The Toombs County Medical Society announces the following officers for 1926:

President—J. E. Mercer, Vidalia.

Vice-President—I. E. Aaron, Lyons.

Secretary-Treasurer—W. W. Odom, Lyons.

Spalding County Medical Society

The Spalding County Medical Society announces the following officers for 1926:

President—L. M. Gable, Griffin.

Vice-President—W. C. Miles, Griffin.

Secretary-Treasurer—P. I. Hawkins, Griffin.

Delegate—N. W. Gable, Brooks Station.

Alternate—W. H. Austin, Griffin.

Board of Censors—N. W. Gable, W. C. Miles, C. L. Tucker.

Clarke County Medical Society

The Clarke County Medical Society announces the following officers for 1926:

President—J. S. Stewart, Jr., Athens.

Vice-President—J. D. Applewhite, Athens.

Secretary-Treasurer—Thos. B. Gay, Athens.

Delegate—Linton Gerdine, Athens.

Alternate—W. H. Cabaniss, Athens.

Board of Censors—J. D. Applewhite, W. H. Cabaniss, H. W. Birdsong.

Taliaferro County Medical Society

The Taliaferro County Medical Society announces the following officers for 1926:

President—T. C. Nash, Philomath.

Secretary-Treasurer—John A. Rhodes, Crawfordville.

Delegate—A. T. Ray, Sharon.

Woman's Auxiliary of the Medical Association of Georgia

OFFICERS

President.....	Mrs. William H. Myers, Savannah	Secretary-Treasurer.....	Mrs. A. J. Mooney, Statesboro
Vice-President-at-large.....	Mrs. C. W. Roberts, Atlanta	Parliamentarian.....	Mrs. Allen H. Bunce, Atlanta
District Managers			
1st District.....	Mrs. A. J. Waring, Savannah	7th District.....	Mrs. W. H. Perkinson, Marietta
2nd District.....	Mrs. Gordon Chason, Bainbridge	8th District.....	Mrs. Paul Holliday, Athens
3rd District.....	Mrs. R. H. Pate, Unadilla	9th District.....	Mrs. J. H. Downey, Gainesville
4th District.....	Mrs. R. S. O'Neal, LaGrange	10th District.....	Mrs. T. E. Oertel, Augusta
5th District.....	Mrs. James N. Brawner, Atlanta	11th District.....	Mrs. B. H. Minchew, Waycross
6th District.....	Mrs. C. H. Richardson, Jr., Macon	12th District.....	Mrs. T. C. Thompson, Vidalia

WOMAN'S AUXILIARY

The Woman's Auxiliary of the Medical Association of Georgia has planned a most delightful program for the Albany meeting in May.

Wednesday, May 12

11:00 A.M.

Meeting of Executive Board, Woman's Club.

State President, Mrs. W. H. Myers, presiding.

4:30 P.M.

Reception, Albany Woman's Club.

Mrs. A. H. Hilsman, President, Woman's Auxiliary, honoring distinguished guests, Executive Board and visiting doctors' wives.

Thursday, May 13

11:00 A.M.

Annual Session, Woman's Club.

President's Address, Mrs. W. H. Myers.

A short talk on the value of the Woman's Auxiliary. Mrs. Allen H. Bunce.

12:30 P.M.

Luncheon, New Albany Hotel.

Mrs. W. L. Davis, Toastmistress, introducing incoming and outgoing presidents and members of the Executive Board.

2:00 P.M.

Ride to places of interest: Sky Water Park, pecan groves and hospitals.

Thursday, May 14

11:00 A.M.

Election of Officers, Woman's Club. Mrs. Gordon Chason, Chairman, Program Committee.

NINTH DISTRICT WOMAN'S AUXILIARY

The Auxiliary to the Ninth District Medical Association held a meeting Wednesday morning, March 17th, at the Community House.

Representatives from Jackson, Barrow, Habersham and Hall Counties were present and reports from each were given.

Mrs. J. H. Downey was elected chairman for the Ninth District.

WOMAN'S AUXILIARY OF THE HALL COUNTY MEDICAL SOCIETY.

The Woman's Auxiliary to the Hall County Medical Society met at the home of Mrs. J. H. Downey, Friday morning, March 12th.

The minutes were read and approved.

The Treasurer reported dues paid to date and was instructed to send same to Mrs. A. J. Mooney, Statesboro.

Motion by Mrs. H. Latimer Randolph that the District Auxiliary be held at the Community House on Friday morning, March 17th, was adopted.

Meeting adjourned.

MRS. H. LATIMER RUDOLPH,
Secretary.

BOOKS RECEIVED

Potter's Compend of Materia Medica Therapeutics and Prescription Writing with especial reference to the Physiological Action of Drugs. Based on the tenth revision of the U. S. Pharmacopoeia including all unofficial remedies by A. D. Bush, B.S., M.D., Professor of Pharmacology, Emory University. Ninth Edition, Revised. Containing 262 pages. Publishers: P. Blakiston's Son & Company, 1012 Walnut Street, Philadelphia.

The Surgical Clinics of North America, Philadelphia Number, December, 1925. Issued serially, one number every other month. Volume V, Number VI, 223 pages with complete index to volume 5; 50 illustrations. Per Clinic year; February, 1925, to December, 1925; Paper, \$12.00; Cloth, \$16.00 net. Publishers: W. B. Saunders Company, Philadelphia and London.

Archives of the Andrew Todd McClintock Memorial Foundation for the Study of Disease of the Alimentary Canal. Volume I. Pleomorphism in Bacterial Protoplasm. A Study in Psittacosis by Andrew Todd McClintock, M.D. Containing 240 pages. Privately published: John William Draper, Director, 285 Madison Ave., New York.

Goiter: Nonsurgical Types and Treatment by Israel Bram, M.D., Instructor in Clinical Medicine, Jefferson Medical College, Philadelphia, Pennsylvania; Member of the Society for Study of Internal Secretions. Contains 479 pages. Publishers: The Macmillan Company, Atlanta, New York, Boston, Chicago, Dallas, San Francisco.

BOOK REVIEW

Thoracic Surgery: The Surgical Treatment of Thoracic Diseases. By Howard Lilenthal, M.D., F.A.C.S. Vols. I and II, Philadelphia. W. B. Saunders Co., 1925.

This work has been long awaited by English speaking surgeons, for it is the first comprehensive study of thoracic disease in the language. In fact, with the exception of Sauerbruch's *Chirurgie der Brustorgane* it is the only work of consequence devoted exclusively to thoracic surgery. It is, therefore, a most useful contribution to an ever increasing field of surgical endeavor.

The two volumes are logically arranged, the first two hundred and fifty pages being given over to general considerations of thoracic pathology, the physiology of respiration in health and disease, roentgenology, anesthesia, and a review of the anatomy of the thorax.

Detailed description of the surgical anatomy, pathology and treatment of diseases of the mediastinum, heart, esophagus, pleura, and lungs is given in chapters devoted to these subjects. Acute and chronic empyema, lung abscess, and pulmonary tuberculosis are given special consideration in keeping with their importance.

To the general practitioner this work will appeal because of its attention to such details as therapeutic aspiration, trocar and canula drainage, and postural treatment of abscess. To the surgeon it will be a reference book of final authority for the whole field of thoracic surgery.

The illustrations are good and numerous. Any procedure can be easily found in an index of authors and an index of subjects.

D. C. ELKIN, M.D.

Feeding and the Nutritional Disorders in Infancy and Childhood. By Julius H. Hess, M.D., Professor and Head of the Department of Pediatrics, University of Illinois College of Medicine; Chief of Pediatric Staff, Cook County Hospital; Attending Pediatrician to Michael Reese and Englewood Hospitals; Consulting Pediatrician Municipal Contagious Hospital, Chicago; Member of Advisory Board, Children's Bureau, Department of Labor, Washington, D. C. Illustrated with forty-

two engravings in the text and full-page colored plate. Fourth revised and enlarged edition. Published by F. A. Davis Company, Philadelphia, 1925. Price \$4.50 net.

This new (4th) edition has been thoroughly revised by the author, and includes the recent developments on this subject. It is a splendid and useful text, intended primarily for teachers and students, but every doctor will find it a most helpful consultant. The subject matter is extremely comprehensive, and it furnishes an excellent guide for infant feeding and for the treatment of nutritional disorders in infants.

The chapters on Colic and Flatulence, Constipation and Abnormal Stools, and Vomiting have been revised.

Also a great deal of new material and recent developments have been added to the chapters dealing with Scurvy, Spasmophilia, Acidosis, and Anemias of Infancy, and Rickets.

In the chapter on Acidified Milk, the author makes special mention of the splendid results obtained by the use of lactic acid milk, soured by *B. acidophilus* cultures, to increase the gastric acidity and aid digestion in undernourished infants.

Also among other recent developments of vital importance, that this volume sets forth, are the uses of the roentgen ray and the rays from the quartz lamp, in the prophylaxis and treatment of rickets, and in the treatment of spasmophilia.

Celiac Disease is introduced in an added chapter.

R. T. W.

"From Infancy to Childhood," by Richard M. Smith, M.D., Atlantic Monthly Press; 105 pages. Written primarily for parents for use in guiding the health and habits of children in the important years, two to six. It is a continuation by the author of the subject of his previous book, "The Baby's First Two Years."

The book opens with a discussion of the relationship of the doctor, mother and nurse to the child, with a brief description of the nursery. The chapter on physical development is particularly useful, giving height and weight tables, causes of malnutrition, effects of posture, diseased tonsils, heart and kidneys, and constipation. The chapter on Food, giving diet and feeding schedules should be a valuable aid. The care of the sick child is taken up and suggestions made for common emergencies and for handling the contagious diseases. The author concludes with a discussion of training and education.

The book is well written and the subjects are discussed in a brief and interesting manner, easily understood by the average parent.

JAS. A. WOOD, M.D.

Pediatrics, Vol. 4, "The Practical Medical Series," (1924), Edited by Isaac A. Apt, M.D. The Year Book Publishers, 381 pages.

This book appears for the first time as a separate volume; formerly, for more than twenty years, it has shared its pages with the department of Orthopedics. It is a resume of the pediatric literature appearing in 1924 and contains in brief form the collection of information which reflects the year's progress in diseases of children. It is particularly valuable to the busy general practitioner. The subject matter covered includes every phase of pediatric activities.

JAS. A. WOOD, M.D.

Physical Chemistry in Biology and Medicine, by McClendon & Medes. W. B. Saunders Company, Publishers.

The preface of this book states very aptly its field of usefulness. Namely, that it is intended only for research workers in biology and medicine, and only those who have had enough thorough ground work in algebra, trigonometry, analytical geometry, calculus, theoretical physics, physical chemistry, and physiology.

It might be said that the book has no usefulness to the clinician, except possibly in certain chapters on individual subjects, in which he may have done special study. For its intended field of usefulness, however, it is evidently 100% thorough.

To quote from the preface, "Very often the biologist fails to receive early training which he later feels the need of. Two alternatives are open to him, either to confine his biological studies to phases of the work which do not require the training which he has missed, or to turn back and make good his deficiencies," which deficiencies are a lack of knowledge of the above-mentioned mathematical, chemical, and physical sciences, and without a thorough knowledge of them, it would be a waste of time to go into this book.

TRIMBLE JOHNSON, M.D.

The Diagnosis of Children's Diseases, by Professor Dr. E. Feer, translated by Carl Ahrendt Scherer. Publishers: J. B. Lippincott Company, Philadelphia.

The work confines itself entirely to the diagnosis of diseases of children with special attention to the ills of the newly born. Treatment is not considered except when it is essential for diagnosis. The material presented is treated in a brief and concise manner. It gives innumerable fine points of diagnosis that are not even mentioned in general text-books.

There can be no doubt that this volume will be found as useful in both general and special practice, as the works on diagnosis in internal medicine, surgery, etc. It should be a great aid to physicians in other specialties of medicine.

It is particularly rich in good illustrations, essentially all of them being good photographs. There are excellent plates of scarlet fever, measles

and German measles.

WM. W. ANDERSON, M.D.

Ocular Therapeutics.—A Manual for the Student and Practitioner, by Ernest Franke. Publishers: The C. V. Mosby Co., St. Louis.

This work would best be classified as an Encyclopedia of Ocular Therapeutics. There is nothing strikingly new in this work, but the first part which is composed of six chapters on the treatment of the most important general diseases, is well worth the careful study of the student interested in eye diseases and their treatment.

The second part of the book takes up each part of the eye and its specific treatment.

The work is best suited for library or reference use.

ZACK W. JACKSON, M.D.

Preventative Medicine, by Mark F. Boyd, M.D. Publishers: W. B. Saunders Company, Philadelphia & London, 1925.

The second edition of this volume contains 429 pages, divided into eight sections, with 1-22 chapters to a section.

The author has set forth very clearly the salient features of modern preventive medicine, defining it, as that branch of applied biology which seeks to reduce or eradicate disease by removing or altering the responsible etiological factors.

While covering this vast field of endeavor briefly, information is so condensed and references so plentiful, that students or practitioners undoubtedly receive a definite stimulation of interest from the study of this work, primarily designed to impress upon the medical profession the importance of public health in the field of preventive medicine.

JAMES J. MARTIN, M.D.

Insects and Diseases of Man, by Carrol Fox, M.D. Publishers: P. Blakiston's Son & Company, Philadelphia, 1925.

This work contains 349 pages with 92 illustrations and is divided into two parts: MEDICAL ENTOMOLOGY, and DISEASES OF MAN TRANSMITTED BY INSECTS.

Part one, treats of those insects which are directly or indirectly concerned with the occurrence or spread of diseased conditions in human beings or animals, and is particularly well illustrated with plates, drawings and material supplied from some of our most reliable sources.

Part two, deals with diseases carried by arthropods among human beings and is of distinct value to the practitioner as well as the student interested in preventable and transmittable diseases. While much remains to be learned about life histories of pathogenic organisms, a great deal of valuable information is given in this volume concerning the various ways in which arthropods may transmit disease.

JAMES J. MARTIN, M.D.

OBITUARY

Dr. George H. Lehmann died at his home in Augusta on February 14, 1926, after an illness of about two weeks which he contracted while in attendance on his patients suffering with influenza. He was fifty-three years of age. He moved to Augusta in early youth from LaGrange, Georgia, the place of his birth. He graduated from the medical department of the University of Georgia in 1899 and following his graduation he became one of the city's best known doctors and centered his work and efforts on assisting the poor and relieving their suffering. His funeral was conducted from his home, 1130 Greene Street. Rev. E. C. Sheridan officiating.

Dr. T. S. Jones, of Jeffersonville, Georgia, died February 17th at the age of sixty-two at a sanitarium in Macon after a brief illness from pneumonia. He was a member of the Medical Association of Georgia and one of the most prominent practicing physicians of his section. He was a son of Major T. S. and Mrs. Mary Cowan Jones, a native of Twiggs County. He was identified with various enterprises, a charitable and community welfare worker. He graduated when young at the Medical College of Louisville, Kentucky. Funeral was held from the Jeffersonville M. E. Church.

Dr. James L. Lovvorn died February 4th at his home in Bowdon, Georgia. He was a member of the Medical Association of Georgia, President of the Bowdon State Normal and Industrial College, President of the Bowdon Oil Mill Company, President of the Bowdon Railway and was a leader in the organization of the Bank of Bowdon. He was a successful physician and followed his profession with skill. Dr. Lovvorn was born in Randolph County, Alabama, in 1862, educated in Bowdon College, received his medical education from the Medical Department of the University of Georgia. He was a member of the order of Odd Fellows, the Elks, a Shriner, F. & A. Mason, and the Bowdon Baptist Church.

Dr. T. J. Phillips, of Spalding County, one of the most prominent farmers and physicians of his section, took his life February 20, 1926, at his home, twelve miles from Griffin, on the Jackson Road. Ill health and some business losses were attributed by his friends as the cause of the act. Funeral services were held in the Fellowship Presbyterian Church in Butts County.

Dr. M. T. Marchman died February 21st at his home in Dallas. He was a prominent

druggist and a religious leader in his home city. He was superintendent of the First Baptist Sunday School, a member of the Board of Deacons, and had been a member of the Baptist Church for forty years. Funeral services were held at the First Baptist Church. Dr. Marchman is survived by his widow, three daughters; Mrs. Thos. A. Moye, East Point; Mrs. T. E. Walker, Bremen; and Miss Ruth; two sons, George and M. T. Marchman, Jr.; his mother, Mrs. H. T. Marchman, Villa Rica.

NEWS ITEMS

Dr. G. T. Olmstead was elected Medical Director of the Savannah Hospital with the heartiest approval of the hospital staff.

Dr. Thomas S. Clay spoke very complimentary of the work and record of Dr. R. V. Martin, former Medical Director of the Savannah Hospital, and that his administration had been efficient and the condition of the hospital better than ever before.

Miss Estelle Bowers is in charge of the Savannah Hospital as Superintendent. She is a graduate of the Johns Hopkins Hospital.

Doctors T. C. Davidson, H. R. Donaldson, L. W. Childs, E. C. Thrash, Arch Elkin, T. P. Goodwyn and Joseph Hines, Atlanta, were appointed as the new Executive Committee of the Grady Hospital by the Hospital Committee of the City Council.

Dr. T. C. Thompson was host to the Leon Moye Medical Association at the Vidalia Hospital. Toombs, Tattnall and Montgomery Counties compose this association. Dr. J. E. Mercer, Vidalia, is President; Dr. C. W. Findley, Vidalia, Secretary. An interesting meeting was held and the guests were treated to a shad dinner.

Doctors Sidney Walker and H. L. Montford's offices were burglarized in Dublin. The thief took both dope and needles.

The Waycross Hospital is being remodeled and repaired by the Atlantic Coast Line Railroad with an expenditure of about eighteen thousand dollars for this work, painting and beautifying the grounds.

Grady Hospital handled during the year 1925, according to the report of Mr. Steve R. Johnston, 90,970 patients; an average of more than 7,580 cases for each month; 4,125 persons were operated on; 1,585 babies were born there during the year; 12,932 trips were made by the ambulances of the hospital; 776 negroes were treated for knife and gunshot wounds; 9,660 patients were treated in the wards of the institution.

Dr. E. C. Thrash, our well known and prominent Atlanta physician, was very fortunate to escape injury when his automobile in which he was riding was knocked perhaps forty feet by a street car.

The Atlanta Chamber of Commerce very generously endorsed the expansion drive for Emory University, not as charity, but as an investment.

Dr. J. P. Bowdoin, Adairsville, Georgia, and Dr. T. F. Abererombie, of the State Board of Health, addressed about thirty city and county health officers on their local problems during their two-day session in the State Health Department offices at the capitol on February 19th, 20th.

The Good Samaritan Clinic opened its new and enlarged quarters at 43 West North Avenue on February 12th. This is one of Atlanta's charitable institutions and its officers are among the most prominent men and women of Atlanta.

Dr. R. M. Ware, Fitzgerald, a graduate of the University of Georgia Medical College at Augusta and one among the most prominent surgeons of south Georgia has moved to Miami, Florida. Dr. Ware had endeared himself to the people of his section and no one moving will be missed more.

Dr. D. B. Ware was elected manager of the Fitzgerald Hospital. It was through his efforts principally that the hospital was built.

Dr. W. H. Lott, formerly of Jersey and Buford, has moved to Monroe, Georgia.

Dr. William F. Brunner, formerly of the public health service, just before the Spanish-American war procured for the United States army and navy all the plans of the Spanish fortifications in Havana and other points in Cuba. Congressman Edwards, Savannah, has introduced a bill in congress to pension his widow, Mrs. Florence Brunner.

The Medical Association of Georgia and the Public Library have arranged for all the medical journals received by the Association to be kept in the reference room of the library for reading by physicians. There are seventeen American and English Journals devoted to general medicine, others to special branches, such as neurology and surgery.

Dr. C. L. Ridley, Macon, was elected President of the Georgia State Health Officers Association; Dr. H. L. Akridge, Brunswick, was elected Secretary-Treasurer.

Senator William J. Harris and Congressman Edwards have introduced an amendment to the appropriation bill in congress for funds to build the Medical Officers Quarters at the Marine Hospital in Savannah.

Dr. J. H. Riley, formerly of Sylvester, has moved to Baconton where he will do general practice. His new home is in one of the fine farming sections of south Georgia and in the heart of the pecan growing section.

Dr. Cecil Stockard announces the removal of his offices to Suite 1121 Candler Building, Atlanta.

Dr. L. Amster announces the opening of his laboratory of Physical Therapy in the Doctors' Building, Atlanta.

The Womans' Auxiliary of Dougherty County is making great plans for the entertainment of the doctors' wives during the coming meeting of the Medical Association of Georgia which convenes in Albany on May 12th. A wonderful program has been arranged.

Dr. Frank K. Boland, President of the Crawford W. Long Memorial Association, after negotiations with Senator Harris, announced that they had chosen the eighty-fourth anniversary of the discovery of ether as an anesthetic by Dr. Long for the dedication exercises of the unveiling of the Statue of Crawford W. Long in the Hall of Fame in Washington on March 30th.

On the pedestal of the statue is the inscription:

"Georgia's tribute: Crawford W. Long, M.D., discoverer of the use of sulphuric ether as an anesthetic in surgery on March 30, 1842, at Jefferson, Jackson County, Georgia, U. S. A."

"My profession is to me a ministry from God'."—Dr. Long.

The Richmond County Medical Society had as their guest Dr. J. M. T. Finney, of Baltimore, at their regular meeting in February.

Dr. Paul Eaton read an interesting and instructive paper on, "An Epidemiological Study of Anterior Poliomyelitis," which was discussed by Drs. Albert A. Davidson, V. P. Sydenstricker, E. R. Clark and R. H. Chaney. Dr. F. X. Mulherin read an important paper on "Tetany," which was discussed by Dr. W. A. Mulherin.

Dr. Hugh Roberts has opened an office and drug store at Grovetown for the practice of medicine. He is a graduate of Mercer University of Macon and the Medical Department of the University of Georgia.

Dr. F. Royster has opened offices at the corner of Third and Mulberry Streets in Macon for the treatment of chronic diseases.

Dr. W. A. Flick, member of the Fulton County Medical Society, told listeners over WSB, "You can postpone your own funeral by having an annual health examination by your family physician, by taking more outdoor exercise, less food, more dentistry, no booze, more walking and less taxicabs."

Dr. W. V. Long, of Savannah, was elected Secretary-Treasurer of the First District Medical Society at a meeting recently held at Millen. Dr. Frank K. Boland, President of the Medical Association of Georgia, was present and read a paper on surgery.

Dr. James H. Hines is Chairman and Dr. E. C. Thrash, Vice-Chairman, of the new Executive Committee of the Grady Hospital, Atlanta.

Dr. C. L. Ridley, Superintendent of the Macon Hospital, Drs. C. C. Harrold and W. J. Little entertained the Kiwanians at luncheon and led them through the hospital explaining the work they were doing. He spoke of the high standards maintained by the nurses of the institution and the increased interest manifested by the civic clubs of Macon. The doctors of Macon are devoting much time to the work at the hospital without pay for their services.

Dr. C. C. Harrold, of Macon, delivered an address to the Rotary Club of Griffin on the subject of a Health Officer for the city and Spalding County. The club has launched a movement to procure a health officer for their city and county.

Dr. Robert C. Wiley, of Sparta, although seventy-two years of age, is actively engaged in the practice of medicine and has held the distinction for twenty-five years of writing the first prescription on New Year's day and the last one on December 31st of each year.

The King's Daughters Hospital, of Waycross, is owned and operated by the ladies of that city who are members of The King's Daughters. Their report for the institution for 1925 is one of the most excellent, showing receipts to the amount of \$21,909.98 with all outstanding indebtedness paid and in addition made some improvements. During the year the hospital handled eighty-nine charity cases; two hundred sixty-one part pay cases and two hundred forty-five paid cases.

Dr. W. H. Lott, formerly of Jersey, has opened offices in the Walton Hotel Building, Monroe.

The Woman's Auxiliary of the Bibb County Medical Society has donated funds for the aid of the Macon Hospital in their present financial difficulties.

The report of Mrs. Isadore Hermann, Superintendent of the Public Health Nurse Association, shows that they handled 1,627 cases in Columbus, Georgia, during the month of February.

Dr. W. W. Evans, Oxford, has been actively engaged in the general practice of medicine for more than fifty-five years, eighty years of age, and takes a deep interest in the advancement of medicine and pharmacy.

Dr. C. J. Welborn has been elected county health officer for Hall County. Dr. Welborn and his family have moved to Gainesville.

Dr. J. F. Covington, formerly Secretary-Treasurer of the Colquitt County Medical Society with offices at Moultrie has moved to Ashburn and opened offices in the Shingler Building.

COMMUNICATIONS

To the Editor:

After an absence of two weeks from the city touring Florida, I have your two communications for which I wish to express my sincere appreciation.

I shall busy myself at once in preparing this paper, and hope that I may develop at least a good discussion.

I have just returned from Albany, and can assure you that the people there are very much interested in our meeting and are doing everything they can for the members. I want to warn all members passing through Leesburg that this is the place where the people are held up, and they should drive very slow, and even then they are likely to be fined. I think it would not be amiss to insert a notice in your paper to that effect.

With very kind regards, and congratulating you upon your excellent Emory work, I am,

Very truly yours,

E. C. DAVIS.
Atlanta

To the Editor:

We are in need of a Laboratory Technician who can make blood counts and analysis of urine, sputum and faces. We have access to the State Laboratory at Lexington and the applicant would not be required to do tissue work, Wassermans, etc. Our hospital is now in the organization stage; and at present, we will expect her to help with general nursing.

Please send us names and ask them to make application, stating salary expected.

Thanking you for any courtesy that you may be able to extend in this matter, I am,

Very truly yours,

ANNA M. ELLIOTT, Superintendent,
A. D. Price Memorial Hospital,
Harrodsburg, Kentucky.

To the Editor:

I am returning herewith corrected proof of paper for the Journal of the Medical Association of Georgia.

I wish to congratulate you upon the excellent work of the proof editor and the printer.

Thanking you for your courteous cooperation and with kindest personal regards, I am,

Sincerely,

E. B. SAYE, M.D.,

Milledgeville, Georgia.

To the Officers, County Societies:

The Georgia Elks Association through its chairman, Mr. B. C. Broyles, stated at the last meeting of your Committee on Health and Public Instruction that the Elks were ready to cooperate with the physicians in rendering financial aid to physically handicapped, indigent children. This means that the Elks will defray the expenses of hospitalization and the physicians render gratuitous service.

If there are any worthy children in your county who could be benefitted by this generous offer, let me know of them and I shall communicate with Mr. Broyles who in turn will inform the Local Lodge in your community of the action of its State body.

Make an effort to get this information to your members, so that some unfortunate child may immediately get the benefit of this cooperative action.

Fraternally,

THEODORE TOEPEL, M.D.,

Chairman, Committee on Health
and Public Instruction,
Medical Assn. of Georgia.

65 Forrest Ave., Atlanta.

To the Editor: •

At the last regular meeting of Burke County Medical Society it was decided to invite Richmond County Medical Society to meet with us at its regular meeting on April 15th and have its regular program. The Jenkins County Medical Society will be our guests at this meeting. Jenkins County will furnish one paper and Burke County will furnish one paper, giving us four papers for the evening. A regular old-fashioned Burke County barbecue will be served before the scientific program. This invitation was extended to the Richmond County Society at its regular meeting and enthusiastically received and accepted. Jenkins County accepted. We are holding monthly meetings with a program and a dinner preceding the program. These meetings are well attended.

Sincerely,

R. L. MILLER, M.D., Sec'y.,
Burke County Medical Society,
Waynesboro, Georgia.

To the Editor:

Send a doctor to Ellenton for us at once; good opening here for one. No doctor here. Wire me at once, if you can get one.

R. J. HALL,

Ellenton, Georgia.

BLACKMAN HEALTH RESORT OPENED MARCH 29th

The South's newest medical institution has opened its doors at 1824 Peachtree Road, one-half mile from Atlanta's city limits. Surrounded by five acres of grounds in this close-in location and commanding a view of wooded hills on all sides, it is fortunate in its setting.

The building is of the satisfying Georgian architecture, fireproof and breathes an air of home-likeness, elegance and good taste. The entrance vestibule opens at the right into a reception room which communicates with the business office beyond; on the left is the men's club room and at the end of the vestibule one enters the lounge. This imposing room is fifty feet long and opens by French doors upon a full length rear veranda. The right end of the main floor of the building is occupied by doctors' offices, the business office, the clinical and X-ray laboratories and the electrotherapy and heliotherapy rooms, all grouped around the north elevator. The opposite end of this floor contains the dining room and kitchen. From this part a service elevator reaches the floors above.

The basement contains two tiled and Mott-equipped, daylight hydro-sections having facilities for all hydriatic and hydro-electric procedures and numerous rest rooms, massage booths and special treatment rooms for colon and other treatments.

The second and third floors are given over to 53 patients' rooms together with nurses' stations and diet kitchens. The topmost floor has been left for future development. All rooms are with bath and furnished in the modern hotel manner except that nurses' signals replace telephones. The rooms and corridors are carpeted and are decorated and furnished with a view to both comfort and beauty.

The ample grounds are conducive to several out-door diversions including mashie golf. The Brookhaven Golf Course, to which cards will be secured for visitors, is within 15 minutes by trolley or auto. Delightful range for the pedestrian is within easy reach.

This institution is physiotherapeutic, dietetic and medical in its classification. Its field comprises chiefly nutritional, heart-ar-

tery-kidney, digestive, diabetic, toxemie, chronic-infection and fatigue cases and excludes surgical, mental, addiction and acute alcoholic ones.

Diagnostic facilities are amply provided in the institution. A well equipped X-ray department is maintained and a clinical laboratory for physical and chemical studies of excretions, secretions and blood. In charge of the latter is Dr. J. Neal Willis, recent resident pathologist at Grady Hospital.

Accurate diet therapy is given its deserved high place in the problems of metabolism and digestive disease and in those of the kidney, colon, etc. Fattening diets, reducing diets, diabetic regimes, heart diets, and ulcer diets are carefully supervised and, in a large proportion of cases, weighed.

The physiotherapeutic departments contain, in addition to all of the well known hydrotherapeutic procedures, apparatus for the administration of diathermy, Tesla, autocondensation, Oudin, sinusoidal, galvanic, quartz light, carbon arc and infra-red.

The medical profession is heartily welcomed to make use of any part of the resort's service and will receive any desired degree of cooperation from the staff. Dr. J. Neal Willis is resident physician. Rates range from \$42.00 per week including indicated hydrotherapy and general attention.

Propaganda for Reform

More Misbranded Nostrums.—The following products have been the subject of prosecution by the authorities charged with the enforcement of the federal Food and Drugs Act: Gary's Vegetable Ointment (The Sloan and Spencer Medicine Co., Birmingham, Ala.), consisting mainly of kerosene, alcohol, turpentine, camphor and menthol. Sayman's Wonder Herbs (T. M. Sayman Products Co., St. Louis, Mo.), consisting essentially of a mixture of baking soda, powdered ginger, gentian root, rhubarb, licorice, cascara, sagra, buchu, senna, mandrake and buckthorn. Chappellear's Bronchini (Wm. M. Chappellear & Sons Co., Zanesville, O.), consisting of ammonium chlorid, extracts of plant drugs, flavoring material including anise and sassafras oil, sugar, alcohol and water. S-K Remedy (S-K Remedy Co., Oakland, Oregon), composed essentially of vegetable drugs, including aloes and a small quantity of a mydriatic alkaloid, alcohol and water. (Jour. A. M. A., Dec. 12, 1925, p. 1907).

Goiter Prophylaxis.—Warnings against the promiscuous use of iodine in the prophylaxis of goiter are being sounded. Kimball urges that in all cases of iodine treatment, doses should be considered in terms of milligrams. The maximum dosage for an adult, provided there are no contraindications, is

10 mg. daily for not longer than one month during which time the patient should be under very close observation. Kimball believes that there is no danger in the routine prophylaxis of goiter as it is carried out through the schools, namely, the administration of 10 mg. of iodine weekly. The evaluation of the use of iodine in hyperthyroidism belongs in a separate category. During the last few years its use has gained a new vogue. However, as now used, iodine has not been shown to be sufficient to suppress the disease permanently. (Jour. A. M. A., Dec. 19, 1925, p. 1970).

Vitalait Not Acceptable for N. N. R.—"Vitalait" is the uninforming name under which the Vitalait Laboratory of Newton Centre, Mass., markets a culture of *B. acidophilus*. In the advertising sent to physicians, the generally discarded autointoxication theories of Metchnikoff are used as a warrant for recommending its use in a host of conditions. The advertising sent to a layman is plainly addressed to the public. The Council on Pharmacy and Chemistry found Vitalait (Vitalait Laboratory, Newton Centre, Mass.), unacceptable for New and Nonofficial Remedies because it is marketed under a noninforming name; because the claims made for it are unwarranted and misleading; and because it is exploited to the public in a way that may lead, not only to its use for imaginary ills, but also for conditions in which a correct diagnosis and rational medical treatment are all important. (Jour. A. M. A., Dec. 19, 1925, p. 1985).

Cod Liver Oil Substitute.—If an infant has rickets and an idiosyncrasy against cod liver oil, actinotherapy in the form of sun baths or ultraviolet ray exposure should be employed. Cod liver oil extract and irradiated foods have not yet been developed to a sufficient extent to be commercially obtainable in reliable form. (Jour. A. M. A., Dec. 19, 1925, p. 1986).

W. A. PUTNER, Secretary,
Council on Pharmacy and Chemistry.

PYOCYANEUS MENINGITIS AFTER LUMBAR PUNCTURE

Isidore I. Levy, Baltimore, and Armand E. Cohen, Louisville, Ky. (Journal A. M. A., Dec. 19, 1925). assert that the case presented by them is the first reported case of *Bacillus pyocyaneus* meningitis following lumbar puncture, not preceded by or associated with other pyogenic infection and in which the patient apparently made a complete recovery. Excessive headaches were relieved by spinal drainage, and the authors think that this procedure, together with the intraspinal further investigation by others in the use of carbon dioxide during the induction and maintenance and at the termination of ordinary general anesthesia.

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Original Articles

CANCER OF PANCREAS AND BILE PASSAGES*

Dan Collier Elkin, M.D.,

Atlanta

Carcinoma is the most common of all tumors of the pancreas. It is usually primary but may be secondary, extending from some neighboring organ, most often the stomach. The head is the portion most frequently involved and the symptoms are usually those of pancreatic and biliary obstruction. Its interest, therefore, is largely diagnostic, since determination of the cause of biliary obstruction is of the utmost importance from an operative and from a prognostic standpoint.

While not so frequently found as cancer of other parts of the gastro-intestinal tract, the genito-urinary organs, or the breasts, still cancer of the pancreas occurs often enough to be classed as a fairly common tumor. Undoubtedly it has been frequently overlooked as a cause of death where no postmortem was done, and has been buried under such names as "catarrhal jaundice," "cancer of the liver" and "gall stones." Its incidence in postmortems is estimated as about one in one hundred and fifty cases.

It rarely occurs before the age of forty, but it has been found in children. Men are more likely to be affected than women, in the ratio of six to one.

Primary cancer of the pancreas presents the histological characters proper to that organ, in direct relation to the cellular types that normally constitute the gland. The most frequent form is that of epithelial cancer of the glandular type. Lymphatic metastases and secondary nodules appearing in the liver present the same characteristics. Secondary cancer differs radically from the primary, the structure varying according to the nature of the original neoplasm.

The tumor, usually beginning in the head of the gland may compress the duct of Wirsung, the common bile duct and the ampulla of Vater and so obliterate them, or the tumor may grow directly into any of the structures. Later the portal circulation may be obstructed, ascites will develop and the clinical picture vary according to the particular part involved.

The first symptom is usually one of vague abdominal pain or indigestion. Occasionally the onset is sudden with pain simulating that of gall stone colic. Jaundice soon develops, usually accompanied by pain of varying intensity. The jaundice progresses without intermission, bile disappears from the stools, and does not return. All the signs of biliary retention are present. Cachexia and emaciation are well marked and progress rapidly.

*Read before the Medical Association of Georgia, May 15, 1925.

The most important single sign is the distinct enlargement of the gall bladder. Courvoisier in 1890 found, in reviewing a number of cases, that when the common duct was obstructed by stone, dilatation of the gall bladder rarely followed, but when the obstruction was due to other causes, dilatation of the gall bladder was common. The explanation of this difference was thought by Courvoisier to be the following:

In a majority of cases, where stone blocks the common duct there have been stones in the gall bladder itself. The chronic inflammation thus produced results in thickening and contraction of the gall bladder wall so that it is no longer distensible.

In a previous paper, the writer analyzed the clinical findings in 100 cases of biliary obstruction. Some were due to stone, some to cancer, and a few to pancreatitis.

Of the hundred cases considered at that time 26 were due to cancer, or 25% of the cases studied. Of these 13 were primary in the head of the pancreas, 7 of the gall bladder, 4 of the common and hepatic ducts, and two were cases of cancer of the ampulla of Vater. Of these not a single operative cure resulted, while of the other great class (non-malignant obstruction) all were remediable by surgical procedures. In fact, nothing beyond exploration or a palliative cholecystoduodenostomy was attempted except in two cases, and in both of these death ensued as a result of the operative shock.

The youngest patient was forty and the oldest seventy-two; the average being fifty-six.

No etiological background could be determined. Only three cases had gall stones, and in none was there a history of pancreatitis. Of the twenty-six cases, sixteen occurred in women.

From an analysis of the symptoms and the physical examination, it would seem to be impossible to determine the exact seat of the lesion. Obstruction at the head of the pancreas, in the ampulla, or the ducts

would impose the same mechanical difficulties for the passage of bile, and one would naturally expect the same symptom complex.

The most common complaint was jaundice. This was noted in every case. In each instance the obstruction was complete or steadily progressive. Pain was found to be an extremely unreliable symptom. In six cases it strongly simulated the colic of gall stones and caused considerable difficulty in the diagnosis.

The most constant finding was a large distended gall bladder. This occurred in 22 of the 25 cases, thus emphasizing the reliability of Courvoisier's law.

In many cases the insidious onset of the jaundice, which persists and increases, the rapid loss of weight and strength, make the diagnosis easy. In others, however, the only distinguishing point is the distended gall bladder, and it must be borne in mind as a point of greatest practical importance, since stone is a remediable condition, and cancer is irremediable.

Treatment can only be palliative. The point is to be sure we are treating cancer and not common duct stone or pancreatitis as an incurable disease. Granted a diagnosis, the only operative procedure which is justifiable is an anastomosis of the gall bladder to the stomach or duodenum. Cholecystostomy is valueless, and cholecystectomy illogical and usually fatal. Partial pancreatectomy is possible, and in case the tumor is in the tail, an attempt at removal should be made.

In conclusion it should be stressed that:

1. Pain may occur in cancer of the pancreas or bile passages as well as stone and is an unreliable diagnostic symptom.
2. Freedom from pain is likewise unreliable, for obstruction due to stone or cancer may be painless.
3. Courvoisier's law is the most reliable single sign in differentiating between benign and malignant biliary obstruction.

MALIGNANT DISEASES OF COLON CECUM AND APPENDIX*

E. C. Davis, M.D.,

Atlanta

A number of years ago on removing an appendix during what appeared to be an acute attack of appendicitis, I was deeply impressed by the peculiar appearance of the appendix at the time. It presented an indurated nodular mass at its distal extremity, which on being examined by Dr. A. H. Bunce was pronounced carcinoma. The usual operation was performed, and now after fifteen years there has been no recurrence.

Again a young man, broker by occupation, from New York, was referred to me by Dr. Mannahan, of Atlanta, with history of a serious attack of appendicitis ten years previous at which time no operation was done, and his recovery appeared complete, leaving him with slight discomfort in the right iliac region. Six months ago a mass developed in this region which slowly increased in size, accompanied by no elevation of temperature or variation from normal blood count. A preoperative diagnosis was made of sarcoma of cecum, and operation advised. Resection of cecum was done with side to side anastomosis. A rapid recrudescence occurred some weeks later, and he succumbed from its baneful influence.

Just a few weeks later another patient, a young married woman, was brought to me, having previously been operated on for a suppurating appendix, and the distal portion of the appendix was left. She had a typical attack of appendicitis with suppuration. The abdomen was opened, the remaining portion of the appendix removed imbedded in a pool of pus. It was, however, attached to a mass of tissue too indurated apparently for inflammatory tissue, so some of this was removed and ordered sent to laboratory, and unfortunately this was lost or misplaced and no report made. For a few months her improvement was very gratifying,—this, however, was only temporary, a mass soon developed and rapidly grew at the site of the former attack of appendicitis. She reported for operation, and

as so much progress had been made only an anastomosis with an ileostomy could be attempted to relieve the obstruction. This afforded only temporary relief, and she succumbed about six months later.

Many similar conditions must appear in the active life of the abdominal surgeon, and could be greatly added to from my own case files, but these were sufficient to cause me to feel that we should be more careful in diagnosing these cases early when there is hope for relief.

In looking up available literature I was impressed with the paucity of definite information on malignancy in this particular area and need for more study in order that we may save these sufferers great discomfort and perhaps death.

A brief consideration of the anatomical relations may prove interesting from the standpoint of a cursory review.

Beginning with the cecum a short blind pouch of slightly varying length and diameter and having connected at its beginning the inserted ileum. The length of the large intestine varies from about five to six feet and from 1½ to 2½ inches in diameter without pathology. The cecum resting as it usually does upon the ilio-psoas muscle, unless arrested in its descent by some embryonic interference. It has attached to its posterior median aspect the vermiform appendix and descending as it does as an outgrowth from the convex side of the primitive intestinal loop should be completely covered by peritoneum and have no mesentery. These anatomical conditions are by no means always present, and there are marked variations in its general arrangement. At the ilio-cecal opening it ascends to the margin of the liver then transversely to the margin of the spleen, to descend terminating in the sigmoid flexure, which is in reality a portion of the large intestine, and finally merging into the rectum where it terminates at the anus.

This brief review is given more to direct attention to the points at which friction is more apt to occur, viz: cecum, hepatic and

*Read before the Medical Association of Georgia.
15, 1925.

splenic flexures, and sigmoid. The length of the large intestine varies between 5 and 6 feet, as previously stated.

The variations in location of the portions of the large intestine and their possible influence in causing pathology has been a matter of no small degree of interest. The transverse colon having been found anywhere from its anatomical location just below the stomach to a position deep in the pelvis.

The frequency of cancer of the large intestine has been studied more carefully within recent years, and owing to the fact that many of these cases pass unrecognized it has not probably been given as high a rating as it is entitled to. Even with this it now ranks second to the stomach in frequency as compared to other tissues of the abdominal cavity bearing the ratio of one to four.

The most common sites for malignancy in the large intestine seems to be influenced by the points where friction and stasis are most likely to occur, namely, cecum, sigmoid, hepatic and splenic flexures, named in the order of their frequency.

Etiology: Nothing new has been developed in reference to causation of cancer. The parasitic theory still remains unproved with many followers, and the so-called ultra microscopic organisms which present known methods fail to make apparent, with the common cock-roach as a host still remains unproven as a cause. The eating of uncooked vegetables which have been fertilized by manure has also been mentioned by Oschner and others as causative factors.

Heredity with its long train of followers and proven results in the mouse with its apparent selective affinity for certain organs is still under discussion. The most tangible factors which have been studied are toxæmia and friction. Lane now believes that friction plus toxæmia may exert a very strong influence in causing malignant conditions. In fact we rarely find malignancy in an area where there is no friction or irritation, then add to this stasis and toxæmia and we have to say the least, resistance greatly reduced.

Types: Scirrhus the indurated form which surrounds the lumen of the intestine is said

to be one of the most frequent. Then the adeno-carcinoma and finally the sarcoma.

Diagnosis: In the beginning of the trouble the only signs pointing to such a possibility are the presence of mucus and blood in stools to be later followed by small masses of breaking down tissues. These same signs are found in several other diseased conditions of the rectum and colon so that they alone would not be positively confirmatory. The colon injections with X-ray study is the important diagnostic means available and this must be done by an expert to be of any value. Narrowing of the lumen not physiological with blood and mucus in the stool, a negative Wasserman, a peculiarly offensive stool should make one feel almost sure as to condition in a person past forty years of age.

In the later stages the presence of a tumor which may be easily palpable is strongly suggestive. We must not, however, overlook the possibility of fecal impaction, tuberculoma, or presence of tumors of other neighboring organs as misleading or confusing.

The unfortunate situation that so often presents itself and was in a measure responsible for this paper, viz: the occurrence of a practically hopeless obstruction as the first sign directing the patient to the care of the physician. How practically powerless we usually are in these cases, and with me the mortality has been practically 100% after an ileostomy. After the development of a markedly palpable tumor with emaciation and cachexia, it matters little as to what is done as far as any curative possibilities are concerned. In making the diagnosis we must always eliminate fecal impactions. This being done by careful rectal examination, and remembering the indentation which remains after pressure of fecal mass with history of constipation.

In tuberculoma the presence of t.b. bacilli in the stool, together with the tumor makes plain the diagnosis.

Treatment: This depends entirely upon the earliness of diagnosis as does the possibilities of cure. For there can be no doubt but that even with the advent of radium and deep X-ray therapy the safest and most

sure cure for malignancy in this area is early diagnosis and radical removal. The removal may be done in the ideal way, that is, at one stage when possible, but so often this is not the safest way, and we must resort either to the two stage operation, a side to side anastomosis at one sitting and allowing tissues to heal and then going back and re-secting the diseased part below the anastomosed area, accompanying this with an ileostomy, or we may resort to the Mikulitz method of bringing out and fixing the diseased area until adhesions form, cutting off the exposed part after it becomes safely adherent(and later endeavoring to re-establish the lumen either by a crushing operation and obliterating the partition between the two segments of gut, or connecting them by some of the various mechanical devises. In many of these cases we must be content to simply short-circuit the gut overcoming the obstruction and making the patient comfortable for some months, or do one of various types of colostomies or ileostomies, following this by deep X-ray or radium therapy. Unfortunately for me, my experience has been very unsatisfactory in the treatment of these advanced cases by X-ray or radium. The only effect has been to feel that you had done all that could be done for this condition. Deep X-ray and radium alone in these cases have been so far negligible, and some times I wonder if they have not stimulated or excited them to renewed activity.

Bibliography, Surgery, Diagnosis, Treatment—Oschner.

Principles and Practice of Surgery—Haubold.

Operative Surgery—Bickham.

Anatomy—Piersol.

Operative Surgery—Binnie.

Surgery of Abdomen—Moynihan.

Diseases of Rectum, Anus and Colon—Gant.

DISCUSSION ON PAPERS OF DR. ELKIN AND DR. DAVIS

Dr. Walter E. Sistrunk, Rochester, Minnesota: I have enjoyed these papers very much. I think Dr. Elkin in his paper on pancreatic cancer has given a very concise description of the disease as we usually see it. We have found that the condition is not

uncommon and each year we are consulted by a few people with carcinoma of the pancreas who come for jaundice. At operation we usually find a distended gall-bladder, with an enlargement of the pancreas. The large gall-bladder filled with bile may frequently be felt before the abdomen is opened.

It is often impossible to determine at operation whether the condition is carcinoma of the head of the pancreas or pancreatitis. For this reason we usually do some operation to drain the gall-bladder, like a cholecystogastrostomy or cholecystoduodenostomy and we are often surprised to find a patient who appeared to have cancer alive years afterwards. Something should be done for them. A drainage operation relieves the patient of the jaundice, the intense itching and so forth, which are so troublesome if the obstruction is allowed to continue.

I enjoyed Dr. Davis' paper; he discussed some of the points which I will bring up in my paper and I think our ideas regarding them are quite similar.

Dr. C. C. Harrold, Macon, Ga.: I wish to bring out some things in regard to the pancreatic tumors. Both of the essayists have mentioned jaundice. I have seen three pancreatic cysts but none of them were accompanied by jaundice, perhaps because the head of the pancreas was not involved but the tail. Two of the patients were brought by the same country physician, who had diagnosed tumor of the pancreas before the patient was brought in. One patient was sent to the Mayo Clinic and was not diagnosed. It was a retroperitoneal affair and was unquestionably malignant, because she was posted at the Mayo Clinic a few months later. One other was certainly malignant but only one was posted.

The paper of Dr. Davis brought two patients to mind. One was a patient on whom I operated several years ago for supposed appendicitis and I was surprised to find ileocecal glands, one of which I removed and sent to Cullen of Baltimore. He reported the gland as being unquestionably malignant, of the adenocarcinoma type. The patient was sent to Elliott six months later and upon operation he found no mass. However, due to my report and that of Cullen he removed the cecum, but found nothing malignant on section, although they made a hundred or more sections at the Presbyterian Hospital. The case seemed malignant to me and was reported so by one of the leading pathologists in the country.

In another case operated on by me five years ago, and we found numerous glands in the abdomen. They were so extensive that it was not possible to do anything except remove the appendix and close the abdomen.

The patient was sent to Berg at Mt. Sinai for further exploration. If any of you know Berg you know he is exceedingly radical and will attempt anything. He does not care for the mortality records. He removed several inches of the gut, with no hope of cure. Ewing and Mandelbaum were both present and they fought for a week or more over their specimens. Ewing insisted his specimens were not malignant and Mandelbaum insisted they were, and Ewing finally gave in.

In the case referred to the young man was on deep roentgenotherapy for two years and is absolutely well today. He has been examined by Pfahler and no evidence of malignancy could be found. He was passed for \$100,000 life insurance within the past six months, and the case is more than five years old.

The more I see of the malignancies the less I know of them. I cannot agree with Dr. Davis in regard to the deep roentgenotherapy. Radium I think offers little and I have given up its use in rectal or gut tumors.

Dr. Trimble C. Johnson, Atlanta, Ga.: I saw the patient whose case Dr. Davis reported. One interesting thing was that the man did not complain of obstruction, although the condition developed very rapidly. The chief complaint was pain. At operation several men agreed with me, in whispers, that the tumor should come out. After talking to Dr. Davis we realized that he would have bled to death. I examined him about a month ago and no evidence of tumor was found. I cannot see anything to it but malignancy. I learned another thing: I examined this man for gout (?) some months before but did not trouble to examine the abdomen. If I had done so we would probably have found the tumor sooner. I believe that in all cases over forty years old we should make a thorough examination, or leave the patient alone.

I have had two cases of pancreatic malignancy, without jaundice, in the last two months. Dr. Davis operated on one of them exploratory. He is dead and the other one is dead, too. The second case was especially interesting because the patient told me that an X-ray examination was made four weeks before with a negative report. I was sure there was a definite tumor in the epigastrium. The mass was fixed, she had temperature, but we felt that it was malignant because she had lost about forty pounds in three months. I saw the first roentgenograms and found them absolutely normal, but my plates made four weeks later showed the growth plainly. I found the right lung

filled with metastasis, and at the necropsy we found metastasis of the ovary and on up to the glands of the neck. I forget what they called the growth but the patient had negative roentgen findings four weeks before she came in, and in the interval of four weeks developed a tumor that could be seen.

I have seen three cancers of the pancreas all this year and none of them had jaundice.

Dr. Dan C. Elkin, Atlanta, Ga., (closing): The question of biliary obstruction from cancer of the pancreas depends upon the location of the growth. No jaundice will occur if it affects only the tail. Pancreatic cyst is far more common in the tail than in the head of the pancreas.

The point I wish to emphasize is that biliary obstruction from cancer of the pancreas is a fairly common finding. The diagnosis is usually confirmed by the presence of a large gall bladder. In no case should a cholecystectomy be done and the only surgery which is justifiable is anastomosis of the gall bladder to the stomach or duodenum. This will give the patient relief for 6 or 8 months. The jaundice will clear up and the itching, which is the worst complaint, will disappear with the jaundice.

Dr. E. C. Davis, Atlanta, Ga., (closing): I wish to state that the operation Dr. Johnson reported was only an exploratory operation. I just made a little opening, placed a drain and got out.

In regard to the pancreatic conditions, I have had several. I have opened the abdomen in many cases and found a condition in which I doubted my diagnosis, because after drainage of the gall-bladder some ten or fifteen years ago the patients are still well. I believe in those cases the condition was inflammatory and not malignant, as I first thought. This has occurred in two cases under my care, one patient being a lady about eighty-five years old and still perfectly well. In both of these cases I am sure my diagnosis was at fault.

The patient I mentioned from whom we removed the appendix and part of the cecum I believe also had an inflammatory condition. The specimen was examined by a pathologist and reported malignant but I believe this was another mistake. The recovery has been so complete that I must have been mistaken, as well as the pathologist.

My experience with deep roentgenotherapy has been unfortunate in the far advanced cases. I do not wish to deprecate it. I use it regularly, but in the cases with a large tumor mass which is easily palpable, and can be easily felt, I have seen no benefit result from deep roentgenotherapy. I have sent numbers of such cases to experts in deep roentgenotherapy and they have all died.

CYSTS OF THE MESENTERY*

Charles Usher, M.D.,

Savannah

Cysts of the mesentery are rare. In 1842 Rokitsky reported the first case. Since that time there has been reported between 200-300 cases. Mesenteric cysts may occur anywhere in the mesentery, but are generally found in the mesentery of the small intestine. There are no signs or symptoms which are pathognomonic. The etiology is uncertain. Their origin is thought to be multiple. As a working classification Carter suggests the following, which seems to be the best that I have seen:

1. True mesenteric cysts:
 - a. Embryo-cystomata.
 - b. Entero-cystomata.
 - c. Obstructive.
2. Dermoids.
3. Cystic-malignant disease.
4. Parasitic.

There are five methods of treating mesenteric cysts: 1. Aspiration. 2. Marsupialization. 3. Incision and drainage. 4. Enucleation. 5. If bowel is affected resection of bowel with excision of cyst. Aspiration and marsupialization are obsolete, and incision and drainage are seldom used. Enucleation of the cyst is the best treatment, and if bowel is affected resection of the intestine with the cyst. X-rays may be of considerable value in showing the lumen of the intestine.

Report of a case: Mrs. F., age 31, married 15 years, 7 children, all well. Menstrual history negative. Had typhoid fever at the age of seven. Had a rather brown complexion. She had been sick for two days, but prior to this, her health had been good. She had, at first, general abdominal pains, which finally settled in the right side. There was a tumor mass in the right iliac fossa. General physical examination was otherwise negative. There were some signs of intestinal obstruction. Temperature 102.6; pulse 110; respiration 24; W.C.C. 16500. Differential blood count polys. 90; L.L. 4; S.L. 3; Trans 3. Urinalysis—catheterized

specimen—Turbid Sp. Gr. 1028; alb 2 plus; sugar negative; acetone present. Microscopically a few granular casts.

Diagnosis: Appendicular abscess. Abdomen opened with local anesthesia. The operation was finished under nitrous oxide and oxygen. There was no abscess, but a mesenteric cyst in the mesentery of the small intestine about 8 inches from the caecum, about the size of a large orange. The circulation of the intestine was diminished considerably. A resection was made removing about 6 inches of the intestine including the tumor. An end to end anastomosis was made. Drains were inserted, one was removed on the 2nd day and the other on the 4th day. The specimen was examined by Dr. Lee Howard, who reported as follows: "Middle portion of loop of intestine removed shows a mass 3x4 cm. on the mesenteric side of the gut. The intestine is constricted but not occluded at this point. The mass is dark red throughout and resembles a blood clot. On washing much of the blood-like material is dissolved giving a deep hemo-globin stain fluid. The mass and intestine was incised at operation, but the mass apparently communicates with intestinal lumen. The entire length of gut removed is thick and edematous. There is no growth or gross change of the intestinal mucosa. Paraffin sections from different portions of mass show chiefly blood. In places there is infiltration with mononuclear and pus cells. There are no tumor cells of any sort in any portion of mass. Path. Diag. Organizing blood clot which has become infected."

On the second day after the operation sugar appeared in the urine. She had been getting the Murphy drip with soda bicarbonate 1 oz., and glucose 1 oz., to pint of tap water. This was stopped and the drip was continued with plain water. Her skin which was brown at first was much more so now. At this time we had Dr. John W. Daniel to see her in consultation. On completion of her blood chemistry he reported as follows:

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"Blood sugar 166 mgs. to 100 cc. plasma, (normal 125). Chlorides—as sodium chloride 520 mgs. which is normal. Nonprotein nitrogen 43 mgs. (normal 30 mgs.) Urine not examined by me. Hospital findings positive sugar. While the nitrogen retention in this case is high, I do not think it of any significance. The reason being that she has had a limited intake of water, which will increase her nitrogen retention. If she had any positive and definite involvement of the kidneys she would also likely have a high chloride retention. The increase of blood sugar is so little that I would not advise any insulin at present. But have patient return to city after about two months for another blood chemistry, and then we can see what is going wrong. Often after any febrile condition or surgical operation patients develop a transient hyperglycemia with an overflow in the urine. But this soon clears up. But to be certain have another examination made under normal conditions. Would not advise restriction diet, but allow patient to eat plenty and get well then we can look for additional trouble. Her Co-2 combining power is normal showing no acidosis. Hydrogen Ion is normal also."

We gave orange juice and liquids freely and she began to clear up. Her urine was normal on the 14th day. Her temperature was normal by the 6th day. She had la-grippe on the 15th day for about three days. There was no complication except a stitch abscess, which cleared up promptly. She was dismissed on the 20th day after operation, and had remained well ever since.

References: Shallow—Annual Surgery—April, 1925. Carter—Surgery, Gynecology & Obstetrics—Nov., 1921. Jones—Surgery, Gynecology & Obstetrics, 1915, XXI—56.

DISCUSSION ON PAPER OF DR. CHARLES USHER

Dr. J. L. Campbell, Atlanta, Ga.: The condition discussed by Dr. Usher is very rare. I have practiced medicine for more than twenty-five years and have seen only one such case and did not recognize it until the operation. The symptoms presented by cysts of the mesentery are so similar to those of other abdominal lesions that we seldom suspect the real pathology before the abdomen is opened.

The patient I saw was referred to me because of a fixed mass in the upper abdomen. He was very thin, having lost a little more than half of his usual body weight.

Two years previously he had received a severe blow in the upper abdomen—but was only away from work a few days. Some weeks later he noticed an enlargement which increased in size until it began to give considerable inconvenience. He consulted a surgeon in his home town and was advised that an operation was necessary. When the abdomen was opened the doctor decided that it was a malignancy, closed the wound and told the family that the condition was hopeless.

He appeared hopeless when I saw him, but I thought I would give him a chance. Dr. J. J. Clark made a gastro-intestinal series which showed the tumor to be external to the intestine. The duodenum was visualized running in a narrow band around the mass and then spreading out into the normal size intestine. Dr. H. C. Sauls was asked to work up the case from a medical standpoint with especial reference to the pancreas, but all tests were negative.

Under ether the abdomen was opened in the sear of the first incision and a mass encountered lying in the mesentery of the transverse colon. Aspiration showed that it was filled with a dark brown fluid. Owing to the size and location we felt that it could not be removed safely and made an opening in the anterior wall between the stomach and colon—about a quart of dark colored fluid was evacuated and the mass collapsed completely. The pancreas was outlined lying in the posterior wall and apparently uninvolved. The opening in the cyst was attached to the abdomen and a large drain inserted.

The wound healed nicely and the patient was making a rapid recovery when he went home. I have learned that a few days later he contracted a severe attack of influenza from which he recovered slowly, but is now quite well.

It is evident that the blow in his abdomen caused the cyst—he most likely had a hematoma in the mesocolon which liquified and increased in size slowly until the duodenum was almost obstructed. The emaciation and other symptoms were due to insufficient nourishment.

Dr. T. C. Davison, Atlanta, Ga.: I have had two cases of mesenteric cysts that were not diagnosed until they reached the operating table. I wish to report them because they are quite interesting.

The first case was that of a woman who had had a hysterectomy for fibroids. On ex-

amination later a mass was found in the pelvis which was diagnosed as a fibroid growth on the stump of the cervix, but at operation it was found to be a mesenteric cyst size of a large lemon. A section of the small intestine was resected and an end to end anastomosis was made with a Murphy button, that night as it was unusually warm, she got out of bed, walked the length of the ward and was found by the nurse sitting in a window, "to cool off." She made an uneventful recovery and passed the Murphy button on the tenth day.

The next case was that of a man who had a diagnosis of chronic recurrent appendicitis. He was subject to attacks of abdominal cramps with some nausea and was los-

ing flesh. At operation the appendix was found to be normal, but there was a mesenteric cyst size of a hen egg so close to the intestine that it was flattened out ribbon like producing a partial obstruction. A resection was made and the patient made an uneventful recovery.

Dr. Charles Usher, Savannah, Ga., (closing): I thank the gentlemen for their discussion. I think the mesenteric cyst teaches us one thing—do not be too sure of your diagnosis. I remember two cases, just like this one, in the literature. After the abdomen was open this case looked like a cystic malignant affair, but the growth was perfectly benign.

DIAGNOSIS AND TREATMENT OF MAXILLARY SINUSITIS*

B. McH. Cline, M.D.,

Atlanta

I want to ask your indulgence of this paper. I do not claim, as you will be convinced after it has been read, anything new, but there are several points in regard to the Diagnosis and Treatment of Maxillary Sinusitis, which probably do not accord with the majority of opinions, yet, I have found them to prove of benefit in my cases.

Of course, my practice is limited, and it may be that I have not the right to even express an opinion in regard to the diagnosis and treatment of this condition, as so many men have had more experience and are, therefore, better prepared to do this. However, I am selfish in this matter and hope that this paper may bring out a discussion from others that will be of benefit to me.

On account of the location of the Maxillary Sinus, close proximity to the teeth in the upper jaw and the situation of the ostium to the ethmoids and frontals, also, the opening being higher than the most dependent part, it is one of the most frequently infected sinuses that we have.

I think it would be wise for us to take a general consideration of the anatomy of the antrum. The shape of it is likened unto a pyramid; with the lateral wall of the nose forming the base, the apex at the junction of the malar bone with the superior Maxillary.

The Maxillary Sinus is bounded above by the orbital plate of the superior Maxillary;

anteriorly, by the canine fossa; posteriorly, by the pterygo maxillary fossa, and the base by the maxillary process of the inferior turbinate, post of palate bone, uncinate process, lamella of ethmoidal bulla, and the pars membranacea.

The size of the sinus depends upon the amount of bone reabsorption, also, the age and sex. The shape, relation and position depend upon the peculiar construction of the individual wall.

The nasal is the most important for two reasons. First, because it contains the sole opening and is the first to show pathological changes when the sinus is affected. Second, because it is the thinnest and presents the easiest mode of attacking the cavity for diagnostic or therapeutic purposes. The next important is the anterior wall or the canine fossa, as radical operative procedures are made through this structure. The thickness of this varies, due to various conditions. When performing extensive resections, such as the external radical operation, we must always remember that the infra-orbital foramen lies in this wall, close to its upper margin directly over the canine fossa.

About 25% of the infections of the Maxillary Sinus are due to the teeth. However, this may vary with the opinion of different men. The distance between the apical portion of the roots of the teeth and the floor

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of the sinuses vary with different individuals.

The ostium of the Maxillary Sinus lies in the antero-superior portion of the sinus. The shape of it varies. However, the oval form is the most predominant. The average size ranges from a buckshot to a pea. This opening is not situated as a window in a wall, communicating directly from within outward but takes a direction upward, backward, and inward. The nasal aspect is downward, forward, and outward.

Accessory ostiums are present in about 10% of the cases and are situated posterior to and above the normal opening. They lie either above or below the uncinate process, and are usually round, being considerably larger than the normal ostium. Unlike the latter, they assume no direction but communicate directly with the nasal cavity in the middle nasal passage and may number anywhere from one to four. This condition seldom occurs in children, being a product of later life, due to bone reabsorption.

The abnormalities and anomalies of the Maxillary Sinus may consist of several varieties; overdeveloped or enlarged sinuses, abnormally small sinuses, peculiarly shaped sinuses, misplaced sinuses, or the combination of two or more of these conditions. They also may have the formation of complete partitions or partial partition in a sinus. The most common is complete partition, perpendicularly dividing the antrum into an anterior and posterior division. In this case, we would have two ostiums. One would be in the hiatus in the normal position and the other would be immediately above the middle turbinate. This is considered by some as a misplaced ethmoid cell.

The mucous lining of the Maxillary Sinus consists of three layers: the ciliated epithelial, tunica propria, and periosteal. The glandular supply is very meagre, being confined, for the most part, to the region of the ostium. The mucous lining is very loose around the ostium and is prone to oedematous swelling on slight irritation.

Diagnosis

I want to emphasize that when a patient presents himself for examination and empyema of the Maxillary Sinus is suspected,

there is but one method which will give definite information: exploratory needle puncture. If pus appears, either by aspiration or lavage, one is absolutely certain that the antrum contained the purulent secretion. Whether the sinus itself secreted the pus, or whether it acted in the capacity of a reservoir for pus which had been secreted in one of the overlying sinuses is a matter to be subsequently determined. Having found that the maxillary sinus contains pus, our next step is to find the cause and source of the pus.

The mouth should be examined for diseased teeth. This is the cause of 20 to 30% of antrum infections. Of course, the patient should be referred to the dentist for this examination and his findings relied upon by the physician.

Adjuncts to Diagnosis

Transillumination: I will not go into the technique of this method, as it is well known to all of us. However, my experience is that it cannot be depended upon, as an antrum full of pus may be as translucent as the opposite unaffected side. The interference with the rays of light is not always due to the pus but to the swollen mucous membrane. You may find a dark antrum on transillumination, due to a very dense bone. If you are in doubt, you always have recourse to the needle puncture. This is particularly applicable when the only symptom of antrum trouble is unilateral darkness. Transillumination of the antrum is an important adjunct to corroborate the diagnosis after all other examinations have been made. If the symptoms point toward Maxillary Sinus disease and the test is positive, well and good; if negative, it is no proof of the non-existence of the affection.

Rontgen Rays: This is a valuable adjunct, yet, I do not think we can entirely rely upon this in making a diagnosis, for a great deal depends on the way in which the picture is made and by whom interpreted.

Suction or Negative Pressure: Lack of cooperation and the uncertainty as to where the pus is coming from, causes this to be a doubtful method of diagnosis.

Symptoms in the acute form of general distention and pressure, which occur in the

first stages are due more to swelling and hyperaemia of the maxillary mucosa than to the internal pressure of the pent-up secretion. When present, the nares of the corresponding side is intensely congested, so that even needle puncture, followed by lavage, has little influence upon it.

The anterior wall is often sensitive to pressure. The pain may be present or absent, depending upon the degree of inflammation, and may assume the character of neuralgia. In dental origin, the pain is very severe. Of course, pain is more severe when stagnation occurs with the pent-up secretion in the antrum. Oftentimes, we have to be on our guard if we find the pain over the frontal bone, for it may cause us to make a mistake in the diagnosis and attempt to treat the wrong sinus. Sometime, we have pain in the teeth on the affected side. Headache, whatever its character, is usually intensified by stooping, coughing, sneezing, or any condition which will produce a jarring of the head. Indulgence in alcohol and tobacco increases the discomfort.

After the acute symptoms have subsided, the pain becomes remittent, the exacerbations depending upon the quantity of purulent material secreted. The secretion makes its appearance about the second day. The amount and consistency depends largely upon the causative factor. Empyemas of nasal origin do not secrete as freely as those of dental origin. The character of the secretion varies from serous to purulent, or even sanguino-purulent. The pus from dental origin is apt to be foetid and contain caseous masses.

Appearance usually in the middle nasal passage, over the uncinate process, beneath the middle turbinate and appearing on the anterior third of the inferior turbinate and often on the septum directly opposite. It occurs more frequently in acute inflammation than in the chronic. This varies, however, with the position of the head, anatomical formation of the nose, and consistency of the secretion. The appearance of the secretion is not always constant. This is explained by the fact that for some reason, not well understood, the ostium and drainage passage suddenly become patulous, allowing the full escape of the sinus contents into the

nose. The time for this to occur is immediately after arising, so that when the patient presents himself for examination, in the morning hours, but little secretion can be seen. The patient gives a history of either blowing from his nose, or having to drop back into his throat, a large amount of secretion, immediately after arising. This varies from a muco pus to sanguino-purulent in character.

The mucous membrane in the nose is congested and the sense of smell is interfered with or entirely obliterated. In severe cases where the hyperaemia is marked, passive oedema of the eyelids and cheeks is observed. What can be seen by anterior rhinoscopy depends upon the configuration of the middle nasal passage, particularly the position of the middle turbinate.

The classical symptoms are pus appearing from beneath the anterior end of the middle turbinate, flowing down over the inferior turbinate, which immediately reappears on wiping away with a pledget of cotton. If the middle turbinate lies against the septum, it frequently occurs that no pus is seen in the middle nasal passage, but in the superior nasal instead. On first sight this is apt to be confusing and lead the examiner to suspect empyema of the second series. But, when this secretion is removed, it will not immediately return, which will eliminate this mistake. However, this is but seldom the case. On account of the congestion, the processus uncinatus, and bulla ethmoidalis, usually impinge upon one another, thus closing the anterior outlet. As a consequence the secretion from the Maxillary Sinus goes back into the choanae, through the passage between the middle turbinate and the lateral wall of the nose.

General disturbances: Fever and chills are in the beginning the most prominent symptoms, which vary according to the severity of the infection. Generally speaking, the facial expression of a man, suffering from Maxillary Sinusitis, even though he be able to be about is almost diagnostic. Restlessness during the day and sleeplessness during the night are prominent symptoms. Gastric disturbances from the swallowing of the secretion, assumes the form of nausea and eructations of gas. Peritonitis is not

an uncommon incident and the diagnosis may be incorrectly made on account of the throat symptoms present.

Headache, in some form, is a common symptom, the most frequent being supra-orbital neuralgia, however, in severe cases, the pain is apt to embrace the corresponding half of the head. Killian believes the pain is due, not only to irritation of the trigeminal nerve endings in the mucosa, but to direct irritation of the main trunks. The pain is variable and for a thorough description the cases must be divided into mild, moderate and severe.

In the mild cases, the pain is generally absent, no tenderness, no swelling, teeth on both sides apparently sound and it is not until exploratory needle puncture has been made that the diagnosis is established.

In the moderate cases the pain occurs at intervals, and is indefinitely localized, being but rarely confined to the superior Maxillary region. In addition to the full, tense feeling, sharp shooting pains occur in the infra-orbital nerve and frequently in the supra-orbital region and may be entirely localized to the latter. The pain generally continues during the middle of the day and up until bedtime, unless drainage takes place from the cavity. The pain and discomfort is increased by the indulgence in alcohol and tobacco. Occlusion of the nares on the affected side is hyperemia of the lateral nasal wall, causing the mucosa to swell at the same time stimulating the well bodies in the inferior and middle turbinates. As soon as the sinus empties, these structures shrink and the nose again becomes free.

In severe cases the most marked symptom is the lightning-like attack of neuralgia. These neuralgic attacks are not confined to the diseased side alone but are often complained of on the opposite side, particularly over the course of the infra-orbital nerve and in the parietal region. Occlusion of the nares is marked and more or less constant. The tense feeling is continually present. Even after a thorough lavage, the pain is not relieved. Any sudden jarring, stooping over, straining at stool, or in fact any condition causing a congestion of the head, will cause insupportable anguish, which at

times makes it difficult to decide which, if not all of the sinuses are involved.

The secretion may be serous, mucoid, mucopurulent, or purulent, depending upon the virulence and intensity of the disease. Foetid discharge is usually considered indicative of dental origin. However, this is not always the case, because when the this is not always the case, because when the occlusion of the Ostium occurs, the white corpuscles sink to the bottom and putrefaction sets in. Crust formation in the nasopharynx is also a diagnostic sign of no little importance. The character and amount of the secretion, and position and location depending upon the virulence of the infection and the irregularities in the nose. The patient may blow from his nose or have to come back into his throat, after arising in the morning, a large amount of secretion and no more during the day.

Wall in chronic cases shows hypertrophy and polyp formation. The polyp formation is along the course of the escaping secretion. Hypertrophy occurs particularly on the uncinate process and the anterior extremity of the middle turbinate.

Frequently we have patients presenting themselves with symptoms of dryness of the throat, particularly accentuated in the morning, hawking and clearing the throat immediately upon arising to rid themselves of the accumulated masses of half dry secretion which has formed during the night. Granular pharyngitis is a result of this condition and is generally confined to one side of the posterior pharyngeal wall. Laryngeal disturbances, such as hoarseness, partial aphonia, and even complete loss of the voice have been noticed from time to time.

Disturbances in olfaction may take the form of total or partial anosmia, due to occlusion of the olfactory fissure through the swelling of the mucous membrane, polyps or collections of purulent materials.

A much commoner disturbance is that of subjective perception of foetid odors (cacosmia). This is intermittent and more noticeable when the patient suddenly sniffs. A sign of absolute importance is the subjective intensification of this odor when air is forced through the sinus on needle puncture. This

may cause distressing nervous symptoms, depression and even serious psychological disturbances.

Treatment

I am of the opinion that unless we are positive that there is a carious condition of the bone or polypi in the antrum, we should irrigate it for at least six weeks before doing a radical operation.

The solutions to be used in the irrigation of the antrum vary with the conditions which we find. The solutions that I am mostly in the habit of using are normal salt, permanganate of potash, carbolie acid, argyrol, mercurchrome, alcohol and weak solutions of silver nitrate. Where an antrum has been infected for a long time, I irrigate it with weak solutions of silver nitrate, increasing the strength. I have not found mercurchrome very satisfactory, in my practice.

I am opposed to irrigation through the natural ostium, for I believe that it is very difficult to do and if accomplished a reaction in the tissues takes place, causing a closure of the ostium, with considerable pain to the patient.

I do not think it necessary to go into the technique of the puncture and irrigation, as this is familiar to all of us. However, I wish to impress the importance of pumping air into the antrum before any fluid is used, for at times, unpleasant and dangerous symptoms can result from the failure to do this, as the needle might not be in the antrum, but in the surrounding tissues or through into the orbital cavities. At times, a thick mass of pus will be found in the antrum which will require considerable washing before it is expelled, therefore, a quart of solution should be used in irritations.

I had one case, a white schoolgirl about sixteen years old, who had been suffering from obscure headaches, loss of weight, and loss of interest in her work. Upon irrigation of her antrum, I found it full of pus. I irrigated this antrum for fully six weeks, using all the different solutions, apparently without any results and advised that she come to Atlanta (for consultation), as I thought a radical operation should be done.

On account of her school being near its

close, she waited six weeks before coming. When she did come the antrum was irrigated. Finding it clear, she was advised to return home and that nothing be done. Having some doubt, I irrigated the cavity myself, finding the same results and that has been fully five years ago. The patient has since finished school, is now teaching and has had no unpleasant symptoms, has gained in weight and improved generally. Of course, this is only one case, but it is possible for it to happen in others.

I am opposed to any operation of the nose, which will require a sacrifice of the inferior turbinate. However, if the patient does not improve under irrigations, I would advise the Caldwell-Luc operation. Since you are all familiar with the technique of this operation, I do not feel that it would be right to take up your time with explaining it.

Before doing the Caldwell-Luc or treatment by irrigation, I insist on my patients having an X-ray made of all teeth connected with the sinuses involved, for if it is of dental origin, we cannot hope for a cure until the cause is removed.

I am opposed to perforating the pars membranacea of the lateral wall on account of dissecting the middle turbinate; on account of the position of the opening, it being in the highest point of the cavity; danger of wounding the orbit; and, on account of the granulations forming.

I believe that the cavity can be successfully curetted after the Caldwell-Luc operation and am not in favor of the Denker method on account of the destruction of more bony tissue than is necessary.

Unless there is some contra indication, I believe the Caldwell-Luc should be performed under a general anesthetic, as the local is too much shock and in my opinion cannot be done without some pain.

Unless there is a very copious discharge after the Caldwell-Luc operation, I am opposed to the wet method of treatment. I believe the cavity should be wiped out with cotton on an applicator, well secured, and then an application of Argyrol or Silver Nitrate if any granulations are forming.

The failures of a Radical Maxillary Antrum operation are due to (1) insufficient

inspection during the operation with failure to remove diseased areas of mucosa; (2) the installing of too small a communication with the nose; (3) when of dental origin, in overlooking the necrotic bone in the alveolar process; (4) subsequent reinfection from the nose.

The cause of subsequent complications are (1) removing the gauze packing too early, causing persistent bleeding; (2) making the oral opening too large, with the formation of a permanent fistula into the mouth; (3) forcible curettment in the prelaehrymal recess, causing injury to the tear duct and permanent epiphora; (4) injury to the infra-orbital nerve, causing anaesthesia of the cheek and persistent neuralgia; (5) resection of too much bone near the roots of the teeth, causing injury to the dental vessels and nerves; and, (6) excessive retraction of the periosteum with the books, causing the oedema of that side of the face, which may go on to phlegmonous inflammation.

DISCUSSION ON PAPER OF DR. B. McH. CLINE

Dr. Louis F. Lanier, Rocky Ford, Ga.: I wish to relate my own case. About three or four years ago I began to have some antrum trouble. The doctor said he would paint it with iodine but that I might have some trouble afterward. I could not understand this for I had forgotten that I had an abscess as a child which burst while I was sleeping. I went to Savannah and had a good man there look at it. He said he thought it was nothing but eczema and advised some dry powder. A few days later I began to have severe pain. I called my dentist and told him I would be in to have a tooth out the following day. The next day I was a little better but I went to see my dentist and as soon as he opened up the tooth down came the pus. A little later I went up to Boston and was told I had something wrong with the tooth—and would readily know what to do when the time came. Last summer rheumatism in right knee picked up—for three months I could not chew my food on the right side. On removing teeth all symptoms cleared up.

Dr. J. Lawton Hiers,* Savannah, Ga.: This subject is of interest not only to the nose and throat men but to all of us, especially on account of the sequelae. I am a little bit sorry Dr. Cline did not take up some of the other sinuses as well as the maxillary. He gave us a very clear idea of the anatomical

*Deceased.

condition of the maxillary sinus and its relative position to the other sinuses. I have been doing sinus work to a large extent for twelve or fifteen years, and during that time it has been my privilege to see some interesting cases. We know from the position of the maxillary sinus that it is quite a bit lower than the ethmoid and frontal and when there is a suppurating condition in the ethmoid or frontal the pus frequently finds its way into the maxillary sinus.

As to diagnosis, I depend upon no one method. I use the transillumination and obtain fair results. I always endeavor to determine if possible when there is an overflow of pus from which antrum it is coming, and if I am at all in doubt I call upon the X-ray for assistance. I agree with Dr. Cline that we cannot depend absolutely upon this method of diagnosis. It is easy when the infection is limited to the maxillary sinus to make a little needle puncture, and then the injection of saline or almost anything will suffice to irrigate the antrum.

I wish to stress the importance of a more thorough consideration of the various sinuses and recite some cases which have been called typical. Some of those have been ulcers of the stomach in which a very prominent stomach man of this city was unable to cure the ulcers until after the sinus infection had been cleared up. In another case, in which there was decided mental impairment, the parents were much distressed. This woman had been married for several years, was apparently healthy but no pregnancy had even occurred. She had been treated by a neurologist and by stomach men but the symptoms persisted. When she was brought to me I found the ethmoid maxillary sinuses on both sides were involved. After cleaning these out the nervous condition was entirely relieved, her health became normal and some three or four months later she became pregnant.

Dr. Henry R. Slack, LaGrange, Ga.: I greatly enjoyed this paper. I must state that until within the last few years I welcomed a suppurating sinus about as eagerly as a general surgeon does a carbuncle. The ordinary washing with salt solution and nitrate of silver gave no permanent relief, but Dakin's solution will do the work. I have treated sinuses that have been open and discharging for months and years and by using 1 per cent Dakin's solution I have obtained very satisfactory results. Whatever else you use I would advise against the use of hydrogen peroxid. It will do no good and will probably do much harm.

Dr. W. A. Mulherin, Augusta, Ga.: The importance of infection of the sinuses I think cannot be stressed too strongly. In the work with children Marriott of the

Washington University, in St. Louis, has called attention to the possibility of serious general trouble, such as kidney or heart trouble, as the result of sinus infection. They have demonstrated nephritis in some of these children. There will be albumin, casts, blood and so on in the urine and within a short time after removal of the focus of infection the kidney will clear up. I think it cannot be emphasized too strongly that there is a very close relationship between the teeth, the tonsils and the sinuses in kidney disease.

I would like to ask Dr. Cline if he is operating the sinus under gas, as Dr. Arbuckle is doing.

Dr. R. L. Miller, Waynesboro, Ga.: It is said that experience is a very dear teacher but in the final analysis it is the surest of all teachers. Last October I had a tooth which had been affected by pyorrhea for some time and it became active at a time when I could not well get away from home to go to my usual dentist. I called on a local dentist to extract the tooth and thought I would have immediate relief. I did not and the following night was awakened with severe pain in a tooth. I called the dentist up and went to his office and he did all he could to give me relief, but could not do so. I then drove to Augusta in my pajamas and bedroom slippers and my regular dentist there did all he could to relieve me, and finally said he was

going to cause me a good deal of pain. He injected some novocain and then began to curet in the root region and in just a few minutes there was a slip. The bone was necrosed where the root was and out came some discharge. He irrigated and packed it and after being treated every two days for about a month the thing closed up.

I tell this to emphasize the fact that the majority of these antrum cases are of dental origin and whenever we refer a patient with infected teeth to a dentist we should demand of this dentist that he thoroughly curet the root sockets.

Dr. B. McH. Cline, Atlanta, Ga., (closing): Dr. Miller misunderstood me in regard to the majority of these cases being of dental origin. I think it is only about 20 to 30 per cent. I think all patients who have obscure headaches for which the physician is unable to find any cause, even in cases where there is no history of nasal discharge and sometimes no history of pain in the antrum, should be referred to a rhinologist for careful study. We should be very careful in going into the antrum for infection can be caused in that way.

As to the X-ray examination, I believe it is of more use in the frontal sinus than in the others.

I have not used the gas anesthesia but have depended principally upon ether.

SOME VIEWS ON APPENDICIAL ABSCESS*

H. R. Donaldson, M.D.,

Atlanta

The mid-gut, beginning at the second portion of the duodenum and terminating at the splenic flexure of the colon, has, at its most strategic point—the juncture of the large and small bowel—the vermiform appendix, which stands like a signal tower on the gastro-intestinal tract, controlling most probably to a great extent by reflexes, not only the peristaltic wave in the large and small bowel, but in like manner the opening and closing of the pylorus and illeo-cecal valve. If this is true, the time will probably come when we will no more sacrifice a normal appendix than we would any other normal organ. The appendix has had a long and honorable career in contributing to the support of the neophyte in surgery, and I believe that it behooves us to treat this much maligned organ with more consideration and

thoughtful investigation.

It is no small wonder that acute inflammations of the appendix furnish by far the largest per cent of acute surgical abdomens, since it must bear the brunt of all trouble in the alimentary tract, either in front or beyond it, whether this be from the irritating contents of the small intestines, which empties into the head of the cecum, or the retention of irritating matter in the colon made possible by the anti-peristaltic wave in the descending colon, or whenever an infected mucous membrane, either in the small or large bowel, when progressive, extends to and involves the appendix.

Acute appendicitis, unoperated, results in one of four conditions:

1st. The largest per cent of cases will clear up and the patient will recover.

2nd. If not walled off from the peritoneal

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cavity—this is especially true in very young children—general peritonitis will result.

3rd. If walled off from the peritoneal cavity before rupture occurs, appendicial abscess will result.

4th. Rupture into the large or small bowel producing the so-called obliterative type.

Since in neglected cases, rupture is the rule, and since there is a difference of opinion among surgeons as to the best method of procedure in this large and serious groups of cases, I hope by expressing some views as to the proper procedure in such conditions to elicit a helpful discussion of the subject.

A differential diagnosis between rupture and acute inflammation without rupture is of greatest importance, and although this is often difficult if not quite impossible, yet we have the following diagnostic aids which are fairly accurate:

1st. A sudden cessation of pain.

2nd. A palpable mass in the right lower quadrant.

3rd. And of most significance, an increase in the polynuclear per cent. A poly count above 90 per cent, especially if the patient has been sick for 48 hours or longer, should be regarded and treated as a rupture case. I admit that the blood count is often misleading, but it is possibly the safest guide we have.

In appendicial abscess I have adopted the following operative procedure: An incision is made to the outer side of McBurney's point near the anterior spine and in line with the fibers of the external oblique muscle, which is carried by the usual muscle separation method down to the peritoneum. The peritoneum is palpated for a fluctuating mass, and if found, is opened well to the outer side and as low in the iliac fossa as possible—if no mass is felt, the peritoneum is opened cautiously and the head of the cecum explored, going first to the outer side and then beneath the cecum. If no pus is encountered the exploration should proceed gently from without inward until pus is encountered, or until the appendix is located, freed and delivered, when it may be removed whether ruptured or not. If, however, at any time during the procedure, pus appears, unless the appendix is easily accessible without

further separation, no effort should be made to remove the appendix or anything else done in an operative way.

Next, and very important, sufficient drainage. I usually use two cigarettes and one tube, occasionally two tubes, carried well down into every part of the abscess cavity, the wound being closed lightly with non-absorbable material.

After care of these cases is of the utmost importance—which consists of Fowler's position, nothing by mouth, fluids by hyperdermoclysis or by rectum, either as proctoclysis or retention enemas-morphine generously.

I recognize the fact that a great many men use the right rectus incision, separate the adhesions, remove the appendix, wipe out the abscess cavity and drain through a stab wound in the flank—this I do when I find an unexpected abscess or rupture. My reasons for preferring the gridiron to the right rectus incision in suspected rupture, are the following: Nature has made the abscess extra-peritoneal by walling it off, and this wall is not disturbed in the former procedure and the operation is really an extra-peritoneal one. No extra wound is needed for drainage. No new intra-abdominal adhesions are made.

Should the appendix not have ruptured, I have never seen one in the normal position, that could not be removed through this incision. Should the appendix be left, I have only seen one case of recurring abscess caused by it. Most frequently its lumen is destroyed and it gives no further trouble. Should a post-operative hernia occur, the chance of operative cure is as good as that following a right rectus incision. When the patient's condition is extremely bad, the operation can easily be done under local anaesthesia. Last, but by no means least, the mortality is lower.

During my service at Grady Memorial (City) Hospital, during the last three years, 1922-23-24, there have been 108 operations for appendicitis distributed as follows:

1922—19 operations—no deaths
1923—36 operations— 3 deaths
1924—53 operations— 2 deaths

Ruptured Appendix

	Cases	Deaths
McBurney's Incision	1	.....
Right Rectus Incision	12	3
Mid-line Incision	1	.....
	—	—
	14	3

Acute Appendicitis

	Cases	Deaths
McBurney's Incision	8	.....
Right Rectus Incision	36	...
Miscellaneous Incision	8	.....
	—	—
	52	3

Chronic Appendicitis

	Cases	Deaths
McBurney's Incision	2	.....
Right Rectus Incision	24	.....
Miscellaneous	10	.....
	—	—
	36	...

Incidental Operations

	Cases	Deaths
McBurney's Incision	1	.....
Right Rectus Incision	2	.....
Miscellaneous	3	1
	—	—
	6	1

It will be seen from the foregoing records that there were 12 McBurney's incisions with no deaths, and 96 Rt. Rectus incisions

with 5 deaths. I might add that in my private work the McBurney incision with drainage has been used exclusively in all rupture cases with no deaths, and though I realize that this small number of cases does not prove nor disprove anything, yet, when coupled with the theory that nature's first attempt is to wall off and exclude the infection from the general peritoneal cavity, it does give us food for thought. The classical right rectus incision, with the removal of the appendix in appendiceal abscess, is comparable to operating acute pus tubes, and were it not for the anti-bodies already in the blood, together with the truly wonderful way in which the peritoneum takes care of infection, I think most of these cases would die, and those that do recover do so in spite of the surgeon rather than on account of him.

To summarize:

1st. It is possible to make a fairly accurate diagnosis of ruptured appendix.

2nd. All cases of appendicitis with a percentage of over 90 per cent should be regarded as ruptured appendices.

3rd. The McBurney incision, with free drainage, without necessarily removing the appendix, is the proper procedure in appendiceal abscess.

4th. This operation can be more easily performed under local anesthesia.

APPENDICITIS IN CHILDHOOD*

W. W. Battey, M.D.,

Augusta

I feel as though I should offer an apology for presenting a subject upon which volumes have been written, and one which is so well understood. However, from careful observation of a number of cases in childhood, I have been able to interpret certain symptoms and signs that have led me to arrive at a diagnosis in some very obscure cases.

In the study of this subject one is impressed with the obscurity of symptoms; the rapidity of progress of the disease; the great tendency to the development of general peritonitis; and the high mortality.

Our work in this connection can be made

easier if we can secure the co-operation of the child. A frightened child makes a poor subject for examination.

Pain—one of the most important symptoms may be complained of at any location where pressure is made, and, its true significance is not to be evaluated, unless one can secure the confidence of the child, and allay that fear of the physician which seems inherent in every little one who has not been properly trained. Where there is a question of some obscure abdominal condition, I always refrain from looking in the throat until the abdomen has been thoroughly examined, for I am sure you will agree with me that in many children an effort to examine

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the throat unfits them for further satisfactory examination.

Appendicitis may occur at any age, though it is said to be uncommon under five, and exceedingly rare under two.

The following cases may be of interest:

Clinton P., age three months, referred to Wilhenford Hospital. Five weeks ago the mother noticed a swelling in the right inguinal region and acrotum. One week later this swelling ruptured and discharged pus. This drained for one week and healed spontaneously. Three weeks later the swelling in groin became inflamed and painful. A physician was called in and taking it to be an incarcerated or strangulated hernia, attempted a reduction under general anaesthesia. Failing in the attempt the baby was sent to hospital. Upon admission to hospital temperature was 101, pulse 168. Nausea and vomiting. Constipation. Extremely fretful, and apparently in much pain. An examination of abdomen was negative. The right inguinal region and scrotum presented a tumor mass very much inflamed, the scrotum being oedematous as well. The diagnosis of incarcerated and probably strangulated hernia was made, and operation was done at once. When sac of hernia was opened there was an escape of serous fluid. The contents of sac consisted of ileum and caecum incarcerated at external ring. An attempt was made to release caecum from scrotal portion of sac, but it was found attached. Further examination disclosed the appendix attached to the apex of sac by its tip. It was about two and one-half inches in length and very much inflamed. The appendix and mesentery were ligated at base, and severed between clamps. The stump of appendix was inverted and ileum and caecum replaced in cavity. Protecting the cavity with gauze, the tip of the appendix was dissected away from its attachment. There was an escape of a small amount of pus from tip of appendix at point where it had subsequently ruptured and drained through scrotum several weeks before. The hernial sac was ligated at its base, and the hernia closed accordingly to Bassini technique. A small drain was inserted through incision in scrotum. The baby made a good recovery.

Eugenia S., age 18 months, referred by Dr. W. A. Mulherin. Present history—On Feb. 2nd, 1915, the mother had first intimation of child's illness by the refusal to take nourishment. She became nauseated and very fretful. Temperature 100. The usual cathartic castor oil was administered with good results. On the following day Dr. Mulherin was called. Upon examination of abdomen, he discovered a mass in region of appendix, well localized and tender to pressure. Temperature 102. Pulse 118. Respiration 18. Leucocyte count 18000. The diagnosis of appendicular abscess was made. I operated the afternoon of same day. Operation revealed a well localized appendicular abscess. No effort was made to remove the appendix. Several cigarette drains were inserted in abscess cavity, and a counter incision in loin was made through which another drain was inserted. The child made a good recovery.

As to the etiology Francis Campbell says appendicitis is largely a matter of defective drainage and defective structure. When we consider the excessive length compared with the lumen of the appendix; the fact that this long narrow tube is blind at one extremity, while at the other it communicates with the cecum—a center of infectious material; and that it is guarded by a valve at its cecal orifice (the valve of Gerlach), it is evident that if the appendix is joined to the cecum at an acute angle, or if the mucosa in the neighborhood of the valve be swollen, there results a tube with extremities sealed and all possibility of drainage eliminated. Again the appendix contains a relatively large amount of lymphoid tissue, the "abdominal tonsil." This tissue is of low vital resistance especially prone to bacterial invasion.

Intestinal worms according to Howland, in their activities, may cause an erosion of the delicate mucosa, which opens the way for bacterial invasion.

General infections play an important role. It is not infrequent to find appendicitis following in the wake of measles, otitis media, influenza, tonsillitis and typhoid.

Gastro-intestinal disorders probably play the largest part in causing appendicitis in children. Disorders of digestion effect all

parts of the digestive tube, and it may well be said that appendicitis is but a well localized enteritis, for it is a significant fact that appendicitis in the child is often preceded by repeated attacks of gastro-intestinal disorder. According to Bolling, he has been unable to draw any definite conclusion as to the etiology, but from his experience he is convinced that the cause of necrosis and perforation is due to the presence of a fecalith. From my experience I am convinced that this is true, bearing also in mind the fact that foreign bodies such as pins, fish bones, etc., may lead to abscess necrosis and perforation.

The classical symptoms are pain, fever, vomiting, tenderness, rigidity, and leucocytosis.

To analyze these symptoms let us first take up pain. As I have said before, in a child this is very indefinite, and it requires considerable judgment to give abdominal pain its proper interpretation. At the onset let us determine if possible whether the pain is limited to the abdominal wall, or if it is associated with one of the underlying viscera. If the abdominal wall is hyperaesthetic this is invariably associated with hyperaesthesia of inner aspect of thighs, so by examining the last situation we are enabled to gain the confidence of the child somewhat by avoiding the site of expressed pain, and the information is valuable in forming one's opinion as to the exact location of pain, that is to say whether it is intra-abdominal or extra-abdominal.

The sudden subsidence of acute abdominal pain, and the appearance of a sense of comfort and well being should not be regarded as a symptom of improvement, but such should be looked upon as a possible perforation, and the closest scrutiny should be exercised in order to detect the beginning of a general infection. The occurrence of a chill, or chills, strongly suggest the presence of gangrene.

Fever, which is a constant accompaniment of appendicitis, in some cases bears a distinct relation to the severity of the lesion. As a rule it is not high, often not more than 101 degrees, even when there is a localized peritonitis, however, there are exceptions as

will be seen later in case reports.

Vomiting is almost never absent and may occur throughout the entire course. At first the vomiting may be constant and hard, while later on in the course of the disease as peritonitis supervenes, it becomes more or less regurgitant at very short intervals, and provoked by the administration of water or medication. This symptom to me is one of the most important diagnostic points.

Tenderness is usually present. Certainly when there is extensive suppuration. However, in a low grade peritonitis without much distention this symptom may be negligible.

Rigidity, a most valuable sign when elicited, is sometimes very difficult to elicit except in older children who are co-operative.

A tumor mass may be palpated, but frequently this can only be felt through the rectum. However, in young children the rectal examination is most unsatisfactory and disappointing, unless done under general anaesthesia.

Leucocytosis is the reaction on the part of the body to infection provided the vital forces are capable of resisting, and while one expects to find an increased leucocyte count in a virulent infection, the presence of a low leucocyte count when all symptoms point to a severe infection, indicates the loss of normal resistance, and should not influence one too strongly in believing the infection to be of a mild nature. We must accept the leucocyte count not as a criterion, but as a valuable adjunct, giving due consideration to the other cardinal symptoms.

Certainly a gradual increase in leucocytes as the case progresses, the count being made at short intervals is strongly suggestive of increasing severity or extension of infection. Personally I attach great importance to the increased polymorphonuclear leucocytic count in children. I have seen several cases of diffuse peritonitis with multiple abscesses, where the leucocyte count was below 10,000, but the polymorphonuclear count was from 80 to 90 per cent.

The following atypical case illustrates the presence of hyperpyrexia at times, the absence of definite abdominal symptoms, the importance of nausea and vomiting as the

predominant symptom, and the value of increasing leucocytosis, especially polymorphonuclear increase as a means of diagnosis:

William L., age two and one-half years. Admitted to Wilhenford Hospital on service of Dr. W. A. Mulherin.

Present illness. Was taken ill one week ago. There was a slight fever at onset. Three days later began vomiting. This continued unabated. On morning of day of admission to hospital, the sixth day of illness, complained of pain in abdomen at intervals. Temperature 106.8. Pulse 150. Respiration 50. Physical examination by Dr. Mulherin. Throat, ears, lungs and heart normal. Abdomen soft, no distension, no masses, slight general tenderness upon pressure. No evidence of localized inflammation. Urinary analysis by Dr. Dozier negative. Blood examination by Dr. Dozier upon admission as follows:

Leucocyte count—

At 2 PM 13,550 Differential—Poly. 80 LL 14 SL 6
At 10 PM 20,450 Differential—Poly. 81 LL 11 SL 8

Malaria negative—Widal negative. The diagnosis of peritonitis probably due to perforated appendix was made, and operation advised.

Operation right rectus incision. Upon opening peritoneal cavity, there was an escape of sero-purulent fluid. The intestines and peritoneum were injected. The appendix much inflamed, about two and one-half inches in length was found lying free. There was a perforation near its base, due to the presence of a concretion about size of cherry stone. The mesentery was lighted and divided. Appendix ligated and divided. Stump treated with bichloride of mercury. Cigarette drain tied to stump. Drains inserted in pelvis, and beneath liver. Patient made a lengthy, but good recovery.

In the diagnosis of appendicitis we are confronted by many conditions that stimulate appendicitis, so our examination of each case should be very thorough. The conditions so often mistaken for appendicitis are pneumonia, malaria, typhoid fever, influenza, acute hip joint disease, osteomyelitis of femur, psoas abscess, spondylitis, retroperitoneal abscess in iliac fossa, inguinal adenitis, intussusception, Meckel's Diverti-

culitis, pyelitis and acute pancreatitis.

The time at my disposal will not allow a differentiation. Suffice it to say that the careful diagnostician will use all the means at his disposal to make a differential diagnosis.

The treatment is mainly operative. Children do not stand pus well, and there is a great tendency to the formation of multiple abscesses. One cannot caution too strongly against the use of castor oil and other cathartics, as well as the use of opiates, until a diagnosis has been established.

DISCUSSION ON PAPERS OF DR. DONALDSON AND DR. BATTEY, Jr.

Dr. Louis F. Lanier, Rocky Ford, Ga.: We have listened to a very exhaustive description of appendicitis in children, and I wish to stress the necessity of making a careful examination. Most of us are too prone to think these cases are just ordinary stomach ache and neglect them. I was called to see a baby boy, eight months old breast fed, last summer, his fever 102 F., stomach somewhat distended, crying out. I gave a high enema but it did no good. For two hours the child out. Fever still 102 F. I made a careful examination but could never find the cause of the trouble in this breast fed baby. I returned at 3:00 o'clock and found a leucocytosis of 18,000. Dr. Cleveland Thompson of Millen and I opened the abdomen and the child made a good recovery.

It is said that children cannot take much morphine but this child was very strong and we gave almost twice as much morphine as is customary, for otherwise he would have ruptured the abdomen.

Dr. W. A. Mulherin, Augusta, Ga.: Appendicitis is always interesting but it is of particular importance when it affects a baby. The rapidity with which the symptoms develop, the great tendency for abscess formation in the child, with consequent diffusion of the pus and the development of peritonitis, accounts for the high mortality. I think the diagnosis can be made at times in young children if the doctor will bear in mind that abdominal pain in a child is a possible appendicitis. We often call it "colic" and dismiss it with that. If you take the trouble to divert the child by calling attention to some toy or something, and slip the hand down over the abdomen you can frequently elicit tenderness and some rigidity in the right rectus muscle. If you have that, with the associated vomiting and pain, but excluding other trouble you can often make the diagnosis and that frequently means the life of the child.

Dr. Battey has been unusually successful with the cases I have referred to him. I wish to give him credit for some of the patients looked as if they would die, but his surgical skill has brought them through.

Another thing, when the diagnosis of appendicitis has been made in a child the appendix is better in a bottle than in the abdomen. There should be no delay in operating.

Another point I think should be stressed on account of the high mortality it carries, is that when you have a reasonably certain diagnosis of appendicitis I think more exploratory laparotomies should be performed. If it was my child and I could not make an absolutely certain diagnosis, but felt that the appendix was involved, I would ask a surgeon to open the abdomen and make sure the appendix was not jeopardizing the child's life. I think if we follow this rule we will often save the lives of these children.

Dr. Walter Norton, Savannah, Ga.: To my mind the most important point that has been brought out in Dr. Donaldson's paper is the fact that he considers the operation completed when he encounters pus and inserts a drain, and is satisfied to quit. I think it is criminal to proceed with an operation in the face of an appendiceal abscess and break down a single adhesion, and attempt to remove the appendix. The patient's life may be sacrificed by the slightest effort to remove the appendix, unless it is presented right in the incision and can be snipped off without disturbing tissues.

Another point he brought out is the value of the low incision in these cases. I believe that the lower you can get the incision the better drainage you will obtain and the fewer will be the complications.

I recall a case which I mentioned to Dr. Nicholson this morning. The patient was a little boy who was brought in in **extremis**, with a ruptured appendix, fecal vomiting, and looking as if he would surely die. A two or three minute operation was done, drainage was inserted as soon as pus was encountered and that was all. About four days later, expecting him to die any hour, I inserted my finger down beside the drain and made a puncture into the first portion of bulging intestine I encountered with a trocar. This relieved the distention slightly, and three or four days later an abscess was opened in the left iliac fossa under local anesthesia. A few days later another abscess was opened below the umbilicus under local anesthesia, and after a very stormy convalescence the patient was up and around the hospital in a wheel chair. Shortly after that he was the victim of bronchopneumonia. He finally

recovered from that and was sent home with two small wounds still draining, in the hope that he would clear up and come back to have the appendix removed later. He came back in a month and I removed a deep post cecal appendix, while recovering from the appendectomy, he suddenly developed a severe acute Cholecystitis. His G. B. was drained six days after his appendectomy and he made a smooth recovery.

Dr. Charles Usher, Savannah, Ga.: I think the time to operate on appendicitis is when the diagnosis is made. There is no excuse for delay. We know that 10 per cent of all patients with appendicitis die and delay is the cause.

I agree with Dr. Donaldson as to the incision. We cannot have one incision for all patients with appendicitis. With a clean case the right reetus is a good incision, but with a pus case the McBurney is much better. If you have not sufficient room you can cut a little to one side and before long you will have a large enough incision to work in. I believe it is a mistake to leave an appendix when you can get it, for the chances are that you will have to go back and get it some other time. I do not believe we should break down adhesions but think we should make every effort to get the appendix while we are there. I do not believe we should try to invert this type of appendix. If we attempt to invert it we usually have a fecal fistula. Cut it off, burn the stump if you like, and replace it.

There is no particular thing upon which you can make a diagnosis of appendicitis. You cannot make it by the blood count, but by looking over the whole condition of the patient we can usually make it by exclusion.

Dr. E. H. Greene, Atlanta, Ga.: I have enjoyed these papers and the discussion, and have been impressed by the points brought out, especially in regard to early diagnosis and drainage in these cases, and about letting the appendix alone unless it can be removed very easily. I think this is one of the most important points that has been mentioned.

There is one thing to which I wish to call attention, especially in children, and that is the confusion with pneumonia in these cases. The blood count is much the same and there often is pain that may be confused with pneumonia. This point should be borne in mind because we hear of patients that have been operated upon for appendicitis and when the abdomen was opened there was no trouble with the appendix at all, a frank pneumonia being diagnosed later. I think, too, that in some cases of appendicitis (rup-

tured) the appendix has been left in when it could have been easily removed.

Dr. W. Duncan Owens, Atlanta, Ga.: In regard to Dr. Donaldson's paper: It sometimes is dangerous to leave the appendix alone. In one case that came under my care I operated the third time for the same appendix. The patient was a woman who was taken ill away from town. She returned home and was operated upon, drainage of an appendiceal abscess being the only procedure. Some two months later she had another attack of apparently acute appendicitis, and appendectomy was done. About six months later she had another attack and fell into my hands. Since the history was that the appendix had been removed, I made a diagnosis of acute diverticulitis, but on opening the abdomen I found the stump of the old appendix which had not been inverted the site of acute inflammation. This was removed and the patient was cured.

Regarding Dr. Battey's paper, there was one thing he did not mention. Trauma frequently plays a large part in these cases. I saw a case of this type not long ago. There was a history of the patient, a five-year old, having fallen on the right side of the abdomen that morning. I was called and operated at about midnight and found an acute appendix. Kelly and Hurdon have reported about thirty of these cases. In all of them they report the autopsy and operative findings. Each one of them had some pathology which they believed to be either congenital or very shortly postnatal. The pathology was either of the inflammatory type or congenital veils. The case I mentioned had the congenital veils.

Dr. R. J. Alexander, Waco, Texas, (by invitation): I left home on this trip the day our State Association met and it is my good fortune to be here as you are holding your meeting.

I had a single case, as the Doctor did, in a baby three months old, and a hernia. I wish to report it in connection with his. The time has been in Texas when the mention of the appendix or of typhoid fever would get a good discussion, but this is not true of appendicitis now for there are so many points we are agreed on.

In regard to the incision, I agree with Dr. Donaldson entirely. One of the main features is to get on outside of the abscess and as soon as you get in and secure good drainage be satisfied to quit. That has been my practice always. The man who searches around and hunts the appendix will lose more patients. Only a few times have I had to go back after drainage, but it can be done much more safely after the inflammation has subsided.

I think it very important to make an early diagnosis and to operate early in appendicitis in children. It has been my opinion that pain is a great symptom, but we have to watch for lung trouble, particularly in children. The thing that has always checked me up is that when we get a high blood count in children we should always think of pneumonia. I appreciated these papers very much.

One afternoon a lady was sent to the hospital for some condition. Along with her a baby three months old. The house surgeon phoned me the baby was also ill, suffering from what he believed to be a strangulated right side, inguinal hernia, after examination. I verified the diagnosis and advised an operation, which was done. We found the cecum and appendix passing through the ring, down into the serotum strangulated, the appendix congested and red, which was removed and hernia repaired. Patient made a good recovery.

RESULTS OF TREATMENT BY RADIUM IN 429 CASES OF CARCINOMA OF THE CERVIX UTERI*

Arthur C. Primrose, M.D.,
Americus

The material contained in this report was obtained from file cases at the Howard A. Kelly Hospital by me during my residence, and herewith submitted through the courtesy of Drs. Howard A. Kelly and Curtis F. Burnam. The scope of this paper is to give the results in the treatment of cervical cancer by radium, and to serve as an individual

statistical report following that of the national survey made by the American College of Physicians and Surgeons. It is not our intention to enter into the mode of technique employed at the Howard A. Kelly Hospital, as this has been described previously in articles published in 1915 and 1922,* but merely to compile and analyze the results of our endeavor to efficiently treat the malady. However, I may say that as time progresses,

*Read before the Medical Association of Georgia, May 15, 1925.

Experience, the Great Teacher, improves one's technique toward achieving better results and higher percentage of cures.

In November, 1915, Drs. Howard A. Kelly and Curtis F. Burnam reported a series of 213 cases of cervical cancer treated between January, 1909, and January, 1915; 14 of these were classed as operable and 199, inoperable. Of the operable cases, 10 were treated by a combination of radium and surgery and 4 by radium alone. Radium was employed solely in the inoperable cases. In November, 1922, after a lapse of 7 years, another study was made of these same cases, which showed the following results: 50% cures in the operable cases, the longest cure extending over a period of 11 years; of the inoperable cases, 27% were clinically cured and of these only 15 cases or 6% remained in the cured class, as 42 had only been treated in the last 18 months.

Again, reviewing this same group of cases we find the following end results.

Operable Cases

	No.	Now Living 8 yrs., over	Lived 5 yrs. or more	Died within 5 yrs.	%
Cures	7	5	2	0	50
Net cured	7	0	0	7	50
—					
Total	14				
Inoperable Cases					
Cures	16				8
Failures	183				92
—					
Total	199				

This present study includes the above cases and all the cervical cancer cases, excluding none, which have been admitted to the Howard A. Kelly Hospital between January, 1909, and January, 1918; thereby giving a five year period, which we have chosen as our arbitrary curative period, since treatment of the last case. During these 9 years the total cases number 429, which are classified as follows:

1. Operable Group.

A. Operable—Where disease is limited to the cervix, or with only very slight extension to the vaginal vault, and with no evidence of

fixation of the cervix or extension laterally along the broad ligaments.

B. Post - Operative - Prophylactic.

Those cases which were operated elsewhere for a supposedly operable condition, and which came to us for radiation to insure against recurrence.

2. Inoperable Group—Where disease extends beyond an appreciable distance from the cervix to the vaginal vault, or where there was any vaginal metastasis or involvement of the broad ligaments.
3. Recurrent Group—Where local or general recurrences have followed previous complete or incomplete operations for cervical cancer.

Operable Cases—A. Of the 25 classified under this head there are 13 cures, which number does not include 5 cases which did not reach the 5 year cure period, and died of some intercurrent disease. Of these 13 primary cures, 10 are living and well; 1 died after 5 years from a recurrence, and 2 lived longer than 7 years and died of intercurrent diseases. The remaining 7 cases are classified as failures; 1 was over-radiated and died a little over a year later; 1 was under-radiated and died after 3 years; 1 lived 4 years and 3 months and died after an operation elsewhere; 1 was lost track of after 7 months at which time there was no evidence of disease present, and 3 were complete failures.

Eleven of these cases received radium alone, 2 of which are living and well; 1 died of old age after 1 year and 7 months; 1 died in 5 years and 4 months of recurrence; 1 died in 1 year and 7 months, cause unknown; 1 in 4 years from diabetes; 1 was lost track of, and 4 died of recurrence 5 years after treatment.

Three of the cases received radium followed by operation, 2 of which are living and well.

Six had operations followed by radiation, and of these, 4 are living and well; 1 died 11 days after operation from pulmonary embolism, and 1 was a complete failure.

Four received treatments before and after operation. Two of these are living and well;

1 lived over 3 years and 1 died in less than 3 years.

One case received preliminary radiation followed by local cauterization of the cervix, and this case is living and well.

Results from Various Methods of Treatment of the Operable Cases. (Group 1-A)

Table I.

Method	Cases	5-yr. cures	3-yr. cures	Living	Lost	Failures
Radium	11	3	5	2	1	5
Radium and Operation	3	2	3	2	0	1
Operation and Radium	6	4	4	4	0	2
Radium-Operation-Radium	4	2	3	2	0	1
Radium and Catery	1	1	1	1	0	0

In those cases which were cured by radium alone the smallest dosage was 4.1 gr. hr., the treatment given in 3 broken doses at monthly intervals and applied directly to the cervical growth. The largest dose was 5.2 gm. hr., the initial treatment being 4 gm. hr., followed in 2 months by 1.2 gm. hr.

In those cured cases which received radium followed by operation the smallest dose was 1.5 gm. hr., given in a single treatment with operation 6 months later and the largest dose was 3 gm. hr., single treatment followed by operation the next day.

The smallest curative dose, where radium followed operation, was 3 gm. hr. direct application against the cervix. The largest treatment was 33 gm. hr. given externally at a distance over the sacrum and pubis.

Of the 2 cured cases, which received combined pre and post-operative radiation one received 5 gm. hrs. preoperative and 7 gm. hrs. post operative direct cervical application; the other case received 6.6 gm. hr. externally before operation and .05 gm. hr. direct and 30.75 gm. hr. externally at a distance after operation.

I-B. Post-Operative-Propylactic: The 14 cases included in this heading, a sub-division of the operable group, are considered separately in order to distinguish them from those which came to us primarily and were

so judged operable according to the findings on personal examination. Of the 14 there are 8 cured cases, 7 of which are living and well while the other remained well for 6 years and died from a recurrence after 7½ years. Of the 6 remaining and classified as failures, 1 died in 4 years, having remained well for 3 years; 1 in 2½ years from recurrence but free from local disease; 1 in 2 years, 2 months; 2 died from recurrence after 1 year and 1 was lost track of after 1 year being well at that time.

Results of Treatment of the Post-Operative-Propylactic Cases. (Group I-B).

Table II.

Method of Treatment	Cases	5-yr. cures	Lived 3 yrs.	Lost	Failures
Radium alone	14	8	1	1	6

Inoperable Group—224 cases, 19 cures.

The inoperable group includes every case, omitting none, where on examination, in addition to the local disease, there was found involvement of the vagina by either extension or implantations, involvement of either broad ligament, or local or distant metastasis. Treatment was not refused in any case and the methods of treatment employed were the same as described in the fore-mentioned publications, that is by the internal and external application methods and implantation of glass seeds containing radium emanation.

One patient in this group has recently been heard from and reports to be "in the best of health"—it has been 11 years since she received treatment. Two cases are living and well, after having been treated over 9 years ago; 6 for over 8 years and all reporting good health; 4 living and well for longer than 7 years; 1 died in 7 years, 8 months of myocarditis; one lived 5 years and died of "indigestion" and another in 5 years, 2 months, cause unknown, and 3 have been well for over 5 years. If we had chosen 3 years as our arbitrary "cure period," it is readily seen the percentage of cures would be appreciably increased.

In reviewing this large number of cases, we find 19 which remained cured over a period of 5 years or more. This gives us only 9% cures and on the surface appears

to be very small and unsatisfactory reward for our work and efforts. However, the incentive toward treating, at all, this suffering mass of humanity lies not in the percentage of cures but in the immense palliative effects secured by radiation, through the alleviation of pain and eradication of the foul and disagreeable discharges which heretofore had to be endured by these people and those with whom they must come in contact. This achievement is just reward for our efforts.

Recurrent Group—Of the 166 cases surveyed, 21 fall within the cured group, 16 living and well. Of these 1 lived for 11 years, 7 months; 1 for 10 years, 8 months; 1 for 9 years; 3 for over 8 years; 4 for 7 years; 3 for over 6 years, and 3 for 5 years. Of the 3 who died but passed the 5 year limit, 1 lived 8 years, 11 months, dying from pelvic metastasis, the second at the end of 5½ years from recurrence and metastasis and the third at 5 years at which time there was a vesico-vaginal fistula and some thickening in the vaginal vault.

The following table gives the number and percentage of cures in reference to the entire 429 cases:

Table III.

Percentage of Cures in Relation to Total Cases 429

Group	No. Cases	Cures	% of total
1. Operable	39	21	5
2. Inoperable	224	19	4.4
3. Recurrent	166	21	5
Total	429	61	14.4

Table IV.

Percentage of Cures in Relation to the Separate Groups

54% of combined Class I 10% of combined Groups

2 and 3	Class	Cases	Cures	% cures in Group
Operable, or	IA	25	13	52
	IB	14	8	57
(54% of combined Class I)				
Inoperable, or	2	224	19	9
Recurrent, or	3	166	21	13
(10% of combined Groups 2 and 3)				

Table V.

Duration of Life After Treatment

	No.	% of total	No.	%	
Under 1 year	192	45	3-yr. cures	87	20
1-2 years	77	18	5-yr cures	61	14
2-3 years	34	8			
3-4 years	18	4			
4-5 years	8	1.8			
4 years and living	6	1.4			
5 years or more	9	2			
Lost track of	39	9			
Total	429	100			

General: To illustrate the types of some of the apparently hopeless cases treated by radium successfully, the following abstracts of cases are cited:

Case 1.

History. No. 680—Mrs. E. D. M. Age 62. Admitted March 12, 1914.

Complaint. Hemorrhage from genital tract. Past History and Family History, negative.

Past History. Married 26 years. One child, living and well at age of 27. No miscarriages. Menopause at age of 47 years. Slight leucorrhoea since birth of child.

Present illness. Two years after menopause, she was entirely well and free from any signs and symptoms of malignancy. At the end of this period, 3 years ago, she had an occasional show of blood resembling a return of menstruation. During the last 2 months has 2 moderate sized hemorrhages and pain over lower abdomen. Pathological examination of tissue taken from cervix showed squamous carcinoma.

Physical Examination. Revealed an enormous fixed carcinomatous growth involving the cervix and both parametria.

Treatment. On March 14, 1914, 1191 mc radium divided in 6 rubber cots and applied to vaginal vault for 6 hours.

Result. 8 years after treatment she is in excellent health with no evidence of recurrence. No rectal trouble followed this heroic dosage of radium.

Case 2.

History. No. 115—Mrs. B. E. J. Age 45. White. Admitted June 30, 1911.

Past History and Family History, negative.

Complaint, vaginal bleeding.

Present Illness. Onset of symptoms 1 year ago.

Examination. Immense carcinoma of cervix involving the bladder.

Treatment. The involved portion of bladder was removed surgically. Between June, 1911, and September, 1911, there were 21 direct internal vaginal radium treatments.

Result. Has been well for 11 years.

Summary

I. Of the total 429 cases, there are 61 or 14% cures over a period of 5 or more years. Of this number, 13 or 52% were in the I-A. Operable Group, 8 or 11% in the I-B. Operable post-operative class; 19 or 31% fall in the Inoperable, 21 or 34% in the Recurrent groups respectively.

II. According to the individual groups, 54% of the combined I-A and I-B Operable cases were cured; 8½% of the Inoperable; 13% of the Recurrent cases.

III. In the Operable class (I-A and I-B) radium alone cured 1 in 3, radium followed by operation, 2 in 3, operation and prophylactic (post-operative) radiation, 2 in 3,

operation with pre and post-radiation, 1 in 2, and radium followed by cautery 1 in 1. Due to the very limited number of cases in this group, this date is of little value in declaring a "best method."

IV. In the inoperable cases, radium was selected as the only method of treatment and, therefore, no comparative results can be made between it and operation. It is here that our figures show the smallest percentage of cures, 9%, but the percentage and degree of palliation is high.

V. The recurrent group shows 13% cures.

VI. There are 87 cures or 20% over a 3 year period in contrast to 61 or 14% for 5 years or more.

VII. The longest cure noted is 11 years, 7 months, in an extensive inoperable case, the patient now living and well; three cases have been well for 10 years and 14 for over 8 years.

VIII. The severity of the case does not warrant neglect as the longest cure in our series, as stated above, was a hopelessly appearing inoperable case.

*"Radium in the Treatment of Carcinomas of the Cervix Uteri and Vagina," Howard A. Kelly, M.D., and Curtis F. Burnam, M.D., Baltimore—The Journal of the American Medical Association, Nov. 27, 1915, Vol. LXXV, pp. 1874-1878. "Results of Treatment of Carcinoma of the Cervix with Statistics and Technique," by Curtis F. Burnam, M.D., Baltimore, Md., Nov., 1922, issue of the American Journal of Roentgenology, Vol. IX, No. 11, pp. 765-771.

MIDDLE EAR DISEASES WITH COMPLICATIONS AND SEQUELAE

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Before going into the different diseases of the middle ear, perhaps it will be wise to review our old friend, anatomy, in order to get the relation of the tympanum to the nasopharynx and adjacent important structures. The middle ear, known to the otologist as the tympanum, reviewed as a whole, is an irregular wedge shaped cavity lying for the most part between the outer surface of the petrous portion of the temporal bone and the drum membrane. The tympanic cavity presents six walls, which call for careful study. The inner wall is formed by the outer surface of the petrous bone. It presents the following landmarks. At a variable distance

above the mid-point between the roof and floor is a well marked ridge running from before backward and forming a natural boundary line between the inner wall of the vault and inner wall of the atrium. This is formed by the outer wall of the fallopian canal which lodges the facial nerve. Hence, Bell's palsy can result by direct extension through this source.

The superior wall: The roof of the tympanum is of surgical interest from the fact that its upper surface forms part of the floor of the middle cerebral fossa. It's of varying thickness in different individuals, is often exceedingly thin and occasionally is separated from the middle fossa only by thin connected tissue. Through this chan-

*Read before the Seventh District Medical Society, Cedartown, April 1, 1925.

nel, in numerous instances, you may get direct extension of the middle ear infections into the middle fossa, causing various intracranial complications.

The anterior wall: The upper and lower limits of the anterior wall of the tympanum are not clearly defined. Internally and externally, its limits are clearly defined by the inner and outer walls. It presents two prominent landmarks—namely, the mouth of the eustachian tube and the canal for the tensor tympanae muscle. Two or three millimeters above the level of the tympanic floor is the orifice of the eustachian tube, and it is through this channel that we get the majority of our middle ear infections by direct extension from the naso pharynx.

The posterior wall: The posterior wall of the vault and posterior wall of the atrium are the two portions which should be examined separately. The posterior wall of the vault presents centrally a large irregular triangular opening, the base of which is directed upward and the apex downward. This opening is known as the aditus ad antrum and marks the dividing line between the tympanic vault and the so-called mastoid antrum. The antrum is nothing more than a prolongation of the vault. It's usually through this channel that we get extension of middle ear diseases directly into the mastoid cells causing mastoiditis.

The inferior wall: The floor of the tympanum is the narrowest place inclosed between the lower segment of the annulus tympanicus, which gives the bony attachment, to the drum membrane externally and the inner wall of the hypo tympanic space internally. This contains more or less cancellous or diploic tissue. This tissue throws into clear relief the hard compact bone of the floor of the osseous canal, which forms its outer boundary. The floor of the tympanum is in relation anteriorly with the canal for the internal carotid artery, posteriorly with the jugular fossa. The bony plates separating the hypo-tympanic space from the artery in front and the bulb of the jugular vein behind are sometimes exceedingly thin, in fact, sometimes there is what we call a dehiscence, and it is known that through these dehiscence, perforations of the jugular vein have been encountered during a para-

centesis with fatal results. Again, I might say that through this source it is quite probable that we often get what we call jugular thrombosis.

The external wall: The outer wall is formed chiefly by the drum membrane, but since the middle ear extends in all directions, somewhat beyond the limits of the drum membrane, there is a peripheral frame of bone which must be accounted for as part of the outer wall.

Inclosed in this wedge shaped cavity is the ossicular chain, three in number: The malleus, stapes and incus, which are held firmly in place by ligaments and muscles.

The tympanum is lined with mucous membrane directly continuous through the eustachean tube with that of the naso pharynx. Histologically it varies in character in different parts of the tympanum. In the vicinity of the tympanic orifice of the eustachean tube it consists of ciliated cylindrical cells. While over the promontory it is of cuboidal variety. In the vault you have the squamous variety, this type being continuous into the antrum and persisting throughout the lining membrane of the mastoid bony cells.

Arterial blood supply: Is derived from branches of external and internal carotid arteries.

Venous supply: From the carotid plexus.

Nerves: From the glosso pharyngeal (sometimes spoken of as Jacobson's nerve), sympathetic and tri-facial.

The eustachean canal connects the cavity of the tympanum directly with the naso pharynx and forms a very important part of the sound conducting apparatus. It consists of two parts, osseous and a membrano-cartilaginous portion. Its length varies in adults from one and one quarter to one and a half inches, of which about one-third is bony, and two-thirds is fibro cartilaginous. The general direction of the canal in adults from the tympanum to the naso pharynx is forward inward and downward, however, in infants and young children it is more horizontally.

The mucous lining is of ciliated cylindrical variety. The eustachean tube being a connecting canal from the naso pharynx directly into the tympanic cavity affords free access to the various infections which we have

to contend with in any acute infectious diseases which have especial affinity for the mucous membrane of the naso-pharynx, namely, scarlet fever, measles, influenza, infected tonsils and adenoids. In other words, any infection of the naso-pharynx.

As my chosen subject covers such a large and interesting field, I will not go into the various diseases of the middle ear minutely, and will only attempt to touch on the points which will be of especial interest to you as general practitioners.

Points to be considered in examining a patient complaining with middle ear conditions, are:

1. Age, as certain diseases are more common in younger people than in adults.

2. Occupation is also quite important.

3. Heredity plays an important factor.

4. Previous history as to scarlet fever, measles, influenza, etc. Important from a prognostic standpoint.

5. Frequency of attack.

6. Duration of illness, usually from one week up to twenty years and longer.

7. Predominating symptoms: (a) Pain upon moving auricle of the ear usually indicates furunculosis. (b) Pain back of the ear with tenderness and some odema indicates some mastoid involvement when accompanied with middle ear discharge. When not accompanied with middle ear discharge you have to determine whether you are dealing with post auricular adenitis or a true mastoid involvement.

Points to be looked for:

Discharge—Whether thick purulent and without odor—which usually means some acute suppurative process. Thick with foul odor usually means that it is of longer duration, ranging from eight to ten weeks, and in some cases many years. This condition is called otitis media suppurative chronic. Discharge of a mucoid stringy character usually leads us to suspect that the middle ear condition is caused from direct extension from the naso-pharynx. This condition is most commonly seen in children who are suffering from infected adenoids and diseased tonsils. Thin and watery discharge being very offensive you should suspect some bone necrosis.

Feeling of fullness—Caused by infections from the nose and throat and you should in these cases suspect some extension into the eustachean tube and in most instances some involvement of the tympanum. If there is no infection of the nose and throat present you should then be suspicious of cerumen impaction, commonly known as wax, or in some other cases it could be some foreign body in the external canal.

Deafness: Whether sudden or gradual. Sudden: In children there is a question of foreign bodies in the external canal. Usually peanuts, small beads, shoe buttons, corn, etc.

In adults it is a question of cerumen. If history of injury there should always be a question of internal ear involvement.

If the symptoms are slow without discharge or pain you should suspect a catarrhal condition in some form.

Dizziness: Gentlemen, every time a patient comes to you complaining of this symptom, it does not mean that he is suffering from what I have so often called biliousness while I was in general practice. It is a symptom that calls for close study and careful observation. Every patient complaining with dizziness, that cannot be traced to some toxemia, should be referred to some competent otologist for a more complete examination. This symptom generally means that there is some disturbance in the labyrinth and when so recognized can be properly treated and the patient can be saved untold suffering, possibly his hearing, and eventually, maybe, his life.

Pain may be—Acute lancinating, as in acute otitis media. Constant and dull pains similar to what you get in tubo-tympanic-cattarrh, with a low grade infection in the middle ear proper. Also pain may be due to impacted foreign bodies of the canal, furunculosis, carious teeth, unerupted molars, pharyngitis, or tonsilitis.

Diseases of the Middle Ear.

First, I wish to mention acute tubal cattarrh, also called tubo tympanic congestion. This condition is usually always a forerunner of almost every form of tympanic disease, and it deserves a more prominent place than is usually accorded it among diseases of the sound-conducting apparatus.

It may be defined as an acute inflammation of the eustachean mucosa. While this is not considered a disease of the middle ear, I feel like since this is the usual source of infection of the tympanum it should be considered first.

Etiology — Among predisposing causes you should include all conditions interfering with normal nasal breathing, such as deviated septums and nasal polyps. Also the presence of post nasal adenoids found in children, especially in very small children between the ages of three to ten. These children are more frequently sufferers from this condition than is recognized by either the general practitioner or nose and throat specialists. It was very surprising to me during my recent internship, while working for three months in what we called the baby ear room, at the numerous cases of tubo-tympanic congestions commonly called acute secretory ears. In these small children about the only symptoms a mother brings a child to see you for is slight deafness or seemingly what they class as indifference on the part of the child when spoken to. From local examination of the child most invariably they show evidence of being mouth breathers and there are always adenoids present and in some cases hypertrophied tonsils, which are either infected or so large that the orifices of the eustachean tubes are occluded. Examination of the ear drums perhaps show only a very marked retraction with some slight congestion around the outer margin of the drum.

Aural pain in these cases is usually absent.

Course of disease may be divided into three groups: (1) In favorable cases the symptoms only last but for a few days then the tube regains its normal calibre, after this the child's hearing is apparently normal again. (2) In delayed resolution, the negative air pressure in the middle air may result in venous congestion of the mucous membrane of the tympanum. This condition, under appropriate treatment, usually subsides along with the improvement of the tubal catarrh. (3) The third possibility. The simple congestion may result in effusion of serum into the middle ear cavity and even-

tually cause permanent damage to the hearing later on in life.

Prognosis: The first few attacks tend to spontaneous and complete recovery. Frequent attacks untreated lead to impairment of hearing later in life.

Treatment: Internal and local remedies intended to relieve naso-pharyngeal congestion. Local treatments to the tube aiming to reestablish its functions.

Diseases of the middle ear proper usually consist of only five different diseases: Namely, (a) Acute otitis media; (b) Acute secretory otitis media; (c) Chronic secretory otitis media; (d) Cholesteotoma; (e) Tuberculosis.

Acute Otitis Media: Causes—Acute nasopharyngitis, scarlet fever, measles, infected adenoids, tonsillitis, and diving or swimming under water, and trauma. Symptoms: Pain usually severe in character, constant and worse at night, feeling of fullness, deafness and temperature which is usually higher in children than in adults. Local examination of the ear you detect a red bulging drum, all landmarks are gone, that is, the short process of the malleus can't be seen. At this time there may be present a discharge, if so it has had spontaneous rupture. Usually with this the pain subsides. Treatment: Free incision of drum membrane. Hot irrigations or in some cases dry wipes. Also the underlying cause should receive appropriate treatment with especial attention to improve hygienic surroundings, diet, fresh air, sunshine, and general constitutional treatment.

Acute Secretory Otitis Media—Symptoms: Slight deafness, tinnitus, commonly known as noises in the ear. Local examination of the ear: You will usually find what we call a fluid level seen through the lower quadrant of the retracted drum membrane, the latter usually always has a congested appearance. Treatment: Inflation of eustachean tube with appropriate treatment of nose and throat condition. In some cases you will find it necessary to make incisions of the drum and inflate in order to blow the accumulated fluid in the middle ear into the external canal. This procedure should, however, be done under as aseptic precautions as possible.

Chronic Secretory Otitis Media. Usually caused by the same underlying conditions as the above disease and the symptoms are the same, only extended over a longer period of time.

Cholesteotoma—Is an accumulation of desquamation and debris in chronic discharging ears. This becomes very firm and by pressure most invariably involves the surrounding structure. Treatment: Removal by radical operation. The last named disease is not very common and is found in poorly nourished children living in congested tenement districts under very poor hygienic surroundings. I have reference to—

Tuberculosis—Cause: Infection spreading through the eustachean tube or through the blood stream. Symptoms: These patients come to you giving a history of a thin watery discharge over a period of years. These patients do not complain of pain. Upon local examination you will usually find multiple perforations of the drum unhealed. In most instances they are marginal with evidence of bone necrosis.

Complications of middle ear diseases: The most common complications are mastoiditis, lateral sinus thrombosis, perisinus, abscess, Bell's palsy, extra dural abscess, brain abscess, labyrinthitis and meningitis; also, in some cases, we encounter septicemia.

Case Report

In conclusion I wish to report a very interesting case which I recently had at the Massachusetts Eye and Ear Infirmary:

Patient's name: R., age 11, male.

This patient was admitted to my service on the night of November 16th.

Chief complaint: Pain and discharge from right ear.

Present illness: Began one week ago, with pain in right ear, and marked tinnitus with some slight impairment of hearing. The following day the ear began to discharge pus and continued until one night before admission. Immediately after the discharge ceased he began to experience some pain back of the ear and some slight tenderness, with some slight swelling below the ear. The father states that he thought the boy had a chill four days previous to admission but does not know whether he has had any temperature. He further states that the child has been troubled with an unproductive cough with pain across the chest two days before admission.

Has had no trouble with left ear.

Past History: Pneumonia three years ago,

measles and mumps five years ago. Otherwise been very well.

Family History: Not remarkable.

Local examination: Right ear had a membranous exudate from the canal and drum membrane which was quite adherent and upon removal, it bled rather freely. This led us to suspect diphtheria. A specimen was removed and examined. On smear and culture no K. L. was found, however, short chain streptococcus was found on growth of culture. At this time there was no definite tenderness over the mastoid, and only had a small enlarged gland just below the right ear. All cranial nerves were intact, no evidence of any facial paralysis.

Left ear: Had slight eczema of canal, otherwise normal.

Throat: Tonsil hypertrophied and infected.

Nose: Has good breathing space, posterior pharyngeal wall could be seen through nose, no pus seen in either meatae.

General examination: The patient was poorly nourished, anaemic and had the appearance of being quite sick.

Heart: Negative.

Lungs: Had scattered rales at the end of inspiration in the left posterior chest at the base. No dullness or abnormal breath sound made out.

W. B. C.: Only 14,000. Temperature 101. Urine, Neg.

Upon making my ward rounds the next morning, I noticed that he had definite right facial weakness. Other than this, along with his bronchial cough he was apparently very comfortable. Appropriate treatment for the otitis media acute with bronchitis was ordered.

The patient's general condition improved for the next few days, however, on the 20th of November he developed definite mastoid tenderness with post aural swelling and some displacement of the auricle. Examination of the ear showed definite sagging of the posterior superior canal wall. This was treated with ice bag and I ordered daily white counts. On the morning of November 22nd the post aural swelling was more in evidence and his white count was 19,200 at that time. I deemed it advisable to operate regardless of existing lung condition. Under gas oxygen anaesthesia with addition of a very small amount of ether I did a simple mastoid operation. The usual post aural incision was made. There was no perforation through cortex found. The cortex was removed with chisel and rongeur forceps, all mastoid cells were found to be full of pus and granulations with some beginning destruction. The antrum was easily identified, however, just below the antrum and in front of the knee of the lateral sinus was a large cavity running into the region of the facial ridge. This cavity was full of pus. All cells were removed, wound was packed with iodoform gauze and closed with silk worm gut.

Upon the seventh day the middle ear was prac-

tically dry and at this time the facial paralysis was beginning to clear up.

Patient was discharged at the end of two and a half weeks following the mastoid operation, completely relieved.

Diagnosis: R. O. M. S. A., Bell's palsy, bronchitis and mastoiditis.

In conclusion I wish to emphasize the numerous cases of acute middle ear disease, especially among children which are unrecognized and when not properly treated lead to poor hearing in later life. And even though the above case is rather unusual, I saw three similar cases during the past six months.

Radium Ore Revigator—Capitalizing the discovery of radium and radioactivity, water jars containing as a part of the wall of the jar or as an accessory low grade radioactive ore are being sold under the general claim that they render water that is put into them, radioactive and that this radioactive water will "make you well if you are sick and keep you from getting sick if you are well." One of the most widely advertised of these devices is known as the Radium Ore Revigator, put out by a California Company. From the advertising claims the impression is gained that ill health is caused by the lack of radioactivity in our drinking water, that the curative properties of certain mineral waters have been shown to be due to their natural radioactivity and that many ills are cured by the use of water from the "Revigator" jars. Even if the water from the jars has the radioactivity claimed, this is so small that it has no therapeutic significance. (Jour. A. M. A., Nov. 21, 1925, p. 1658).

Side-Lights on Intravenous Medication.—Intravenous injection involves difficulties of technic, with the possibility of local injuries to the peripheral blood vessels at the seat of operation. It presents dangers of bacterial contamination; the vehicle as well as the drug is immediately foreign to the blood, and other objections have presented themselves. The Council on Pharmacy and Chemistry has taken a decidedly conservative attitude toward the recognition of the scores of products intended for direct intravenous use. The wisdom of this stand has been attested

anew by a recent report of Hanzlik and his collaborators who report that a large variety of substance cause definite and important changes in arterial blood of test animals, accompanied as a rule by disturbances in physiologic functions. (Jour. A. M. A., Nov. 21, 1925, p. 1645).

OBJECTIVE PSYCHOPATHOLOGY

By G. V. Hamilton, M.D., Director of Psychological Research, Bureau of Social Hygiene, Inc., New York City. Publishers: C. V. Mosby Co., St. Louis.

This book is essentially a psychopathologist's account of his studies and interpretations of various modes of human and animal behavior. It is meant to reflect the importance of effecting such studies by the use of scientifically formulated methods of research as an essential supplement to the always useful but never quite trustworthy methods of field and clinical observations.

The results of Dr. Hamilton's work are here offered to physicians, social workers and lay readers who may share with him a hope that in time psychopathologic research will make possible the construction of textbooks devoted to systematic accounts of the human personality as an integration of adjustive functions, each of which may be regarded as playing a recognizable role in the determination of total response to particular types of situations.

DANGERS IN THE USE OF CERTAIN HALOGENATED PHTHALEINS AS FUNCTIONAL TESTS

Following the use of phenoltetrachlorophthalein thromboses, local inflammatory reactions at the site of injection and chills have been encountered by many observers. Several deaths probably due to its use have been reported. Clinical and experimental work indicates the possibility of strain or damage to the liver, following injection of the dye. Attempts to make phenoltetrachlorophthalein non-irritating on injection have failed. Many observers have noticed severe toxic reactions following the use of tetrabromphenolphthalein and tetra-iodophenolphthalein. W. H. Rosenau, Banning, Calif. (Journal A. M. A., Dec. 26, 1925), says that the toxicity of the halogenated phthalein compounds should lead to caution in their use. Indiscriminate administration and overdosage should be avoided.

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Profession of Georgia.

65 Forrest Ave., Atlanta, Ga.

MAY, 1926

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Articles are accepted for publication on condition that they are contributed solely to this Journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Reprints should be ordered within 30 days after the appearance of an article, since all type will be destroyed at the end of that time.

Editorial Department

PREVENTION OR CURE

Will disease ever be eradicated? No. Not as long as we are mortal and exist in this present world. Can some diseases be prevented? We feel sure they can if the general public can be brought to realize the possibility and the importance of preventive medicine.

Of course we assume that the medical profession needs no stimulation on this point. The fact is very evident, however, that this is a matter of teaching and training. Certain classes of people may never be made to see the wonderful vision that is apparent to the imaginative eye in preventive medicine, but still we must not slacken our ardour or become discouraged.

Think of the economic loss in expense and time; physical suffering; and worst of all, the risk of permanent damage to some important organ of the body causing invalidism or death, all produced by diseases that can be prevented.

It would be unwise and of no value to

attempt to enumerate the various methods employed to cure diseases. Even granting that those methods are useful and more or less effectual, how much better it would be to prevent them.

The science of the practice of medicine has made no more rapid progress along any line in the last few years than it has in preventive medicine. Every practicing physician has been given, through the efforts of laboratory and clinical investigation, the means by which he can add his influence to the furtherance of its cause. Individual instruction of his own clientele in simple matters of hygiene and sanitation, the value of prophylactic vaccination, and regular annual physical examinations is a contribution each can make to the welfare of his community.

C. H. Paine.

STOOL EXAMINATION FOR PROTOZOA

The stools of 1,122 inmates of a New York state institution were examined by Walter S. Thomas and E. A. Baumgartener, Clifton Springs, N. Y. (Journal A. M. A., Nov. 28, 1925), for protozoa. Of these, 499 showed one or more species of intestinal protozoa, giving a total incidence of 44.47 per cent. There was evidence of cross infestation. The influence of age is not great except in the case of *Giardia lamblia*, in which the young persons are more often infested. *Chilomastix mesnili* was the organism most often found. *Endameba histolytica* was seen in only 1.07 per cent. of those persons examined. Taking this low figure into consideration, together with the facts that this was a class of patients in which a high incidence might be expected, that the patients were all confined in an institution where cross infestation takes place and that none of the 1.07 per cent. with *Endameba histolytica* had at any time shown any evidence of amebic disease, we feel justified in believing that *Endameba histolytica* plays only an insignificant role in the production of disease in New York State.

FACTORS INFLUENCING APPENDICITIS MORTALITY

Figures collected by Frederick C. Warnshuis, Grand Rapids, Mich. (Journal A. M. A., Feb. 13, 1926), from thirty-five hospitals located in eight states, reporting 11,400 cases of appendicitis, show that the apparent average mortality in acute appendicitis is 4.23 per cent. The average operative mortality for removal of a chronically inflamed appendix is 1.68 per cent. He also reviews the results of personal contact and surgical care in 327 cases of appendicitis.

Medical Progress

Department Editors

Anderson, W. W., Pediatrics
Ballenger, E. G., Urology
Bartholomew, R. A., Obstetrics
Block, E. B., Neurology and Psychiatry
Clay, Grady E., Ophthalmology
Dowman, C. E., Neuro-Surgery
Eguen, M. S., Otology, Laryngology and Rhinology
Flitts, Jno. B., Internal Medicine
Greene, E. H., Surgery

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Klugh, Geo. F., Clinical Pathology
Landham, J. W., X-Ray and Radium
Pruitt, M. C., Proctology
Thrash, E. C., Internal Medicine
Waits, C. E., Surgery

DISORDERS OF HUMAN CONDUCT

Newdigate Moreland Owensby, M.D.,
Atlanta, Georgia

The intense interest manifested by the human race in the behavioristic peculiarities of its individual members has always been so great that it is even reflected in our legends, mythologies, folklore stories, historical and biographical sketches, as well as the literature of every age. All of which has dealt mainly with those whose conduct varied so greatly from the behavioristic standards of their particular period that it stamped them apart from the common herd, and therefore worthy of being classed among the immortals. Many of these individuals have had important social or historical roles to fill, or even have been venerated and looked upon as superior beings, beloved in Heaven, possessed and inspired by the Gods, and yet whose only claim to renown were their eccentricities or abnormalities of conduct. Others have displayed an unusual degree of ability, and, therefore, deserve all homage and consideration meted out to them, yet had they not presented marked peculiarities their posterity would have long since forgotten them.

Ajax, Orestes, and Hercules are mostly remembered for their unusual performances, and had not Nebuchadnezzar attempted to emulate an ox in his dietary, it is doubtful that he would have made an indelible imprint upon our memories. So it has been throughout all periods, and a casual survey of our more modern historical celebrities or geniuses will reveal that those whose actions have been such as to cause unusual comment or whose biographers recognized the value of behavioristic peculiarities and attributed unusual performances to them, are the only ones who are recalled without effort.

It is not always necessary for one to per-

form an Herculean task or conduct themselves in a particularly bizarre manner in order to establish an association that will fix them in the minds of their fellow men; a very trivial performance will often suffice. One prominent American accomplished this during his boyhood by acknowledging to his irate parent that he had cut down a favorite cherry tree. At the present time press agents recognize the advertising value of conduct peculiarities and frequently exploit their employers by having them take milk baths or conduct themselves in an otherwise extraordinary manner. Conduct disorders are seldom due to ulterior motives however, and for the most part, the individuals themselves are unaware that their actions are unusual, or else are unable to furnish a satisfactory explanation for them. Therefore, speculation has always been rife regarding the peculiarities of behavior in man, and until the advances in modern medicine furnished us with the etiological factors influencing many of the conduct disorders they were either attributed to supernatural influences or the ingenious works of the devil, depending upon the viewpoint of the observer or the act committed.

This attitude can still be observed among many of the clergy, public officials and others who are ignorant of the effects of various toxins upon the intellectual centers of the brain, and the various personality or behavioristic changes resulting therefrom. Because of this lack of knowledge, it is not infrequent that an individual is regarded as a sinner, or punished by our courts for some transgression committed during an intellectual enfeeblement arising from poisons circulating in his blood stream while afflicted with an acquired

or inherited disease. Most physicians now recognize that chronic Brights Disease, syphilis of the nervous system, and many other constitutional disorders often produce toxins or cerebral arteriosclerosis which have a very marked influence on the mentality of the individual so afflicted, and realize the prominent roles played by these diseases in some of the most important episodes in history.

Had Henry VIII not contracted syphilis in his early youth, it is probable that Katherine of Aragon would have given him the desired heir to his throne and he would not have demanded a divorce in order to marry Anne Boylen, and being denied this, laid the foundations for the establishment of the Church of England. The history of the Netherlands would have been different had not Phillip II been afflicted with cerebral arteriosclerosis resulting from chronic Brights Disease, and, perhaps there would have been no French revolution had it not been for the teachings of that paranoid physician, Jean Paul Marat.

There have been many other individuals of historic renown who have not shown any evidence of constitutional disease however, yet their conduct abnormalities were most pronounced. Effort to explain their behavior under all previous conceptions were unsatisfactory, and physicians and criminologists were puzzled as to their etiology until the recent advances in psychopathology clarified the situation by showing that these conduct disorders have their roots in human instincts and emotions rather than other etiological factors and that they are amenable to the re-educational forms of psychotherapeutics.

Had this knowledge been prevalent during the life of Jeanne d'Arc she would not have been consigned to the flames for being a sorceress, but would have been given neuropsychiatric treatment, and advised to either marry or sublimate her sexual desires in a healthful occupation. Sex repression is often like locking a giant in the cellar; it may destroy the whole house.

Orthodox medicine has always been reluctant to acknowledge that many nervous and mental disturbances are due to abnormalities of the mental processes or emotional disturbance rather than structural changes in the nervous system, or visceral disorders, but the

predomance of evidence is such that all enlightened physicians today accept this to be true. The experiments of Pavloff and Cannon on the effects produced by emotional disturbances on the gastric secretions of the dog, and the more recent investigations of Stekel, which have revealed many laws governing our mental processes during health, as well as disease, coupled with the studies of Charcot, Janet, Adler, DeJerine, DuBoise, Jung, Freud, White, Jelliffe, and numerous other authorities, have shown the value of psychotherapeutic treatment in these disorders.

Excessive inhibition of our emotions demanded by civilization, the intensity of the battle for existence, and the greatly increased mental activities of all individuals, has produced such a strain on our nervous system that there is scarcely a person today who does not show evidence of a nervous or mental disorder due to a psychopathological lesion. The attendant symptoms are so incongruous, and the behavioristic peculiarities so manifold that a few case histories are herewith summarized.

The conclusions and deductions drawn therefrom may seem unusual to those who are unfamiliar with conduct disorders, but those physicians who are constantly observing them in their clientele cannot fail to be interested.

Case I.

White, male, age 28, residence, Mississippi. Occupation: civil engineer. Referred by Dr. A.

His family history reveals the fact that his mother was very neurotic but is otherwise negative for all mental and nervous diseases. Patient had the usual diseases of childhood, but no other illness of consequence. He was the oldest child and the only boy, and was considerably pampered by his mother during his childhood and adolescence. He made good progress in school and subsequently graduated from a prominent college. After leaving college he secured a connection with a firm of engineers and has not changed positions since. He indulged occasionally in alcohol but never to excess or any great frequency. At the age of 23, he contracted gonorrhea. He was treated by a very prominent specialist and discharged at the end of four months as cured. There were no sequelae nor evidence of a return of the disease since that time. Sexual

Congress occurred at rare intervals until a year and a half ago, since that time it has occurred with greater frequency. Some two years ago he became engaged to marry a young lady who resided in a neighboring town. The marriage ceremony was to have taken place some four months later but was postponed because of the present trouble. About six weeks prior to the wedding, this patient became obsessed with the idea that he had not been cured of his gonorrheal infection, and consulted numerous physicians regarding it. None of them were able to discover any evidence of the disease being present. However, he informed his fiancée that his doctor had advised him to postpone his marriage for six months or a year because of ill health, and she reluctantly consented. Shortly thereafter his obsession did not annoy him but very little.

At this time he was sent by his firm to a distant city to take charge of some work they were interested in. During his stay at this place he met five or six women who looked with favor upon him and subsequently he became sexually intimate with them. He states that during that time he did not worry about having had gonorrhea nor was he fearful of infecting any of his mistresses. The work he was connected with was completed about two months before the date set for his postponed marriage and he returned home. A few days after his return he again became obsessed with the fear of gonorrhea and succeeded in persuading his fiancée to again postpone their wedding. Immediately thereafter his obsessive ideas began to subside and he was not troubled with them until four weeks ago. Since that time he has been unable to pass a physician's office without stopping and having an examination made. He states that he has suffered greatly with insomnia during this time because of worrying over the possibility that he may have gonorrhea and infect his bride. Altogether he has been examined by fifty physicians and specialists in Genito-urinary diseases, and none of them has been able to discover any evidence of the disease. Their findings have not satisfied him and he is still fearful that they may have been mistaken and that he is a carrier of the disease. Because of his persistent doubts regarding

Doctor A's examination, he was referred to the writer for a neuropsychiatric examination.

This examination failed to reveal any evidence of an organic disease of the nervous system. When asked when the third postponement of his marriage was to take place, he became emotional and stated that it was only two weeks off. Despite the fact that he had been repeatedly assured that he did not have gonorrhea, he felt it would be nothing short of criminal to marry and expose his bride to this infection. It was suggested that preventive measures be used, but he met this suggestion by stating that preventives were not always safe. He begged the examiner to furnish him with a certificate that his nervous system was in such a bad state that marriage was contra-indicated.

Throughout the entire examination and subsequent visits, he was continually trying to convince the examiner that he was still infected with gonorrhea and it was almost impossible to change his flow of thought into other channels. As a result of his worry, he had lost fifteen pounds in weight and suffered greatly with nervous indigestion. He was so preoccupied with his fears that he had not been able to work for the past three weeks. His facial expression and general attitude denoted great mental anguish. He stated that he had a constant dull pain in the occipital region of his head, and that he was constantly aware of a sensation of having a lump in his throat. Occasional attacks of tachycardia, which were becoming more frequent, caused him considerable annoyance but at no time was he afraid that he had heart trouble. During his fifth visit the examiner called his attention to the fact that these attacks only occurred shortly before his wedding was to take place and that whenever it was postponed they immediately subsided. It was also noted that he was never fearful of infecting any of his mistresses, and that his sexual activities had become more promiscuous and frequent since his engagement. The patient stated that this had not occurred to him previously but that he was willing to admit the accuracy of these statements.

The examiner then told him that these obsessive ideas and his many examinations

were due to the fact that he did not want to give up his freedom and marry, and that he was unconsciously hoping that the disease would be discovered in order that he might have cause for breaking off his engagement. The patient denied this most vehemently, but was told by the examiner to be honest with himself and to think it over carefully until his next visit, which was to be the following day. Upon his next visit, the patient stated that he had thought over the previous day's conversation until three o'clock that morning, when he realized that he had been acting in this manner in order to break off his engagement, and that upon realization of this fact he relaxed and secured the first natural sleep that he had had in five weeks.

A few days later his marriage was consummated, and six months later he wrote the examiner stating that there had never been a return of his anxiety or disturbing thoughts of gonorrhea.

Case II.

White, female, age 18, residence, Virginia. Referred by Doctor B.

Family history fails to show any history of any mental or nervous diseases. Patient is the youngest of four children. The mother was a devoted church member and had inculcated into the patient great fear of committing sin of any description. Past history reveals the fact that the patient had measles, mumps, and whooping cough during childhood and since has been a normal healthy girl until the present illness. She has not been permitted to dance or indulge in any of the healthy exercises practiced by young girls. Nor has she been permitted to receive the attention of any young men other than occasionally being escorted from school or church.

One year ago the patient noted a dull aching in her right arm. Some weeks later the arm became stiff and the forearm slightly flexed. She could not voluntarily extend it and when attempts were made to straighten it by others, she suffered intense pain. This was followed by a very pronounced flexion of her wrist and fingers. The condition progressed rapidly until her fingers were in contact with her wrist, otherwise the patient was apparently in good health, except for being somewhat more emotional than she had been formerly.

Some two months later her right foot became extended until it assumed the position of a pes equinus, and in walking her thigh and leg were extended in front of her and slowly placed on the ground thereby causing a very unusual gait. At the suggestion of the family physician she was placed under the care of an orthopedic surgeon who found that by anesthetized the arm, wrist and fingers relaxed and he therefore placed them in an extended position in a plaster cast. The patient was kept in this for a period of three weeks. During this time she cried almost continually because of the pain she claimed to be suffering. At the expiration of this time, the cast was removed and immediately thereupon the fingers, wrist and forearm assumed their previous contractures and attempts made thereafter towards straightening them out met with great resistance on the part of the patient, who showed evidence of suffering great pain. Many other attempts were made to correct this condition, but they all met with failure and subsequently the patient was referred to the writer for a neuropsychiatric survey.

At first this patient was fearful that the examiner would make other attempts towards straightening out her forearm and, therefore, would not co-operate in any way with him. However, as soon as she became assured that she was not again to be placed in a cast, she showed evidence of a desire to co-operate with him.

The neurological and spinal fluid examinations were negative throughout, nor was there any evidence of any other organic disease. After persistent inquiry, it was learned that the patient had seen a young man suffering with hemiplegia, shortly before her contracture had taken place, and one of her girl friends had told her that this condition was brought about because of masturbation. The patient stated that this had upset her very greatly and admitted that she had been given to this practice. She discussed this young man's condition with her mother, and was informed by her that masturbation was a sin and that the Lord was punishing the young man because of this and that any one whether boy or girl who indulged in this practice was liable to suffer a like punishment. On the

following day the patient noted the first indication of pain in her right arm. She stated that she had always used her right hand for masturbating, and she was firmly convinced that her condition was brought about because of her sin.

The examiner assured her that masturbation was a common practice among boys and girls and that we would have a race of deformed people were they punished for the practice, and that the young man's condition was due to a hemorrhage of the brain which was brought about by an entirely different cause. Moreover, she was informed, that masturbation was only an unclean habit and did not cause any physical disturbance. The patient was rather reluctant to accept this explanation as being true, but at the expiration of two weeks she became convinced that the examiner had given her the correct information and that her mother was ignorant on such topics.

Following this there was a general relaxation of all the muscles implicated, and at the expiration of six weeks the patient was apparently normal.

Case III.

White, male, age 20, occupation: lawyer, married. Residence; North Carolina. Referred by Doctor D.

Family history does not reveal any history of chronic nervous or mental disease. Patient had the usual diseases of childhood. His tonsils were removed at the age of 15; appendix removed at the age of 24. He started his school-life at the age of 8 and always made good progress; never repeated a grade. Subsequently he graduated from a Bay State University where he also received his legal degree.

No history of any venereal infection. Patient has indulged in alcohol for the past fifteen years. His drinking, however, has been almost entirely limited to afternoons and nights. He married at the age of 30.

Some two months ago, he became very nervous and suffered with insomnia. He tried to alleviate this condition by taking a larger quantity of alcohol than usual. This did not ameliorate his nervousness, but on the contrary caused him to become much more apprehensive than usual. However, he could sleep

when he became stupified by the alcohol. Two weeks ago he developed aural hallucinations and thought that several members of a certain fraternal organization congregated beneath his window at night and were planning to ruin him professionally and financially, as well as plotting to destroy his life. Their voices appeared very distinct and their plotting was intermingled with vile epithets directed toward him. Coincidentally with the development of the aural hallucinations, visual hallucinations appeared, and he thought that he could see these people, but was unable to recognize them because of their mode of dress and the masks worn by them. A few days later he concluded that his wife was also plotting against his life in order that she might secure his insurance and marry another man with whom she was infatuated. He believed that his wife would get up during the night and let her lover into the house where he could hear them discussing ways and means to put him out of the way.

At this time he developed gustatory and olfactory hallucinations. He believed his wife was putting saltpetre into his food and water in order to render him sexually impotent, and stated that at other times he would detect the odor of chloroform and ether in his room. He was at all times in mortal dread of life because of these hallucinations and delusions of persecution. Throughout his entire examination he was coherent; oriented as to time, place and person. His manner was at all times apprehensive and during his conversations with the examiner, he would occasionally stop and assume an attitude of listening. Then he would whisper to the examiner that the members of this fraternal organization were listening to his conversation and that he could hear them saying that they would get him. This condition gradually disappeared under appropriate treatment and he regained his mental equilibrium. At this time the examiner elicited the following history of his past life:

He had three older brothers who constantly teased him during his childhood, and referred to him as the fool of the family. His parents had not corrected his brothers for doing this but instead they accused him of being dumb and joined his brothers in teasing him, all of

which caused him to think that there might be some truth in their remarks and that he was actually a fool. When he started to attend school, his brothers continued their teasing and therefore his classmates began to assume a similar attitude toward him which strengthened his belief that there was something wrong, else they would not look upon him as a fool. Whenever a spitball was thrown in the classroom or other childish pranks were played, his classmates would invariably tell the teacher that he was the guilty party and she would either administer corporal punishment, or else make his discomfiture more intense by making him stand in a corner and place a dunce cap on his head. At one time he was accused so frequently of playing pranks on the other children that he was expelled from the school, and after this his parents criticised him most severely.

Subsequently he was sent to college and later, very much to his surprise, graduated. This puzzled him greatly because he could not understand how a fool could graduate in law. He thought there must be something wrong with the University, or else they would not have graduated him. He was even more puzzled when he passed his bar examination, and concluded that if a fool like himself could pass this examination that the whole scheme of things was a sham. Neither could he understand why people consulted him after he opened his office, unless it was because they were greater fools than himself. Frequently when men of prominence consulted him regarding legal matters he would suspect them of trying to trip him and either have him disbarred or punished.

He would only attend social affairs where it was impossible to escape them, and on one of these rare occasions he became acquainted with his present wife. He asked her permission to call and was greatly surprised when she acquiesced. After a courtship of some three months he proposed to her and was accepted. He did not take their betrothal very seriously because it was impossible for him to conceive an attractive girl marrying him. However, he determined to play the game in order to see just what would happen. He was constantly expecting her to break the engagement until the marriage ceremony was performed.

At the conclusion of this he decided that there must be something wrong with his bride or else she would not have consented to marry a fool but he was unable to determine what was wrong with her, although he suspected her of numerous ulterior motives.

Upon their return from their honeymoon he began to neglect her and mistreat her in many ways. She had many friends and they would both be frequently invited to homes of refinement, but he would never accompany her to any of them because he felt embarrassed and out of place. During the day he would necessarily have to come in contact with many respectable people but his evenings were spent with the lower classes because they seemed to look up to him and regarded him as their superior. At such times they frequently indulged in alcohol and consorted with the women of the underworld.

On one occasion he became intimate with a married woman whose husband was employed as a laborer on a night shift, and he decided to avenge himself upon his wife for marrying a fool, by giving this couple a room in his own home. He made no effort to hide his relationship with this woman from his wife and was deeply chagrined because she did not divorce him. He soon began to tire of this mistress and began to neglect her for other women of the underworld whereupon she left his home.

This history was elicited with difficulty and gradually placed together. He was then shown how his entire life had been affected by the attitude of his parents, brothers, and school associates during childhood. How their attitude had influenced him into regarding himself as being a fool, and therefore not a proper associate for decent intellectual people. Each one of his transgressions were traced back to the belief that was installed into him in childhood, that he was a fool. He did not have any difficulty in recognizing this connection between his upbringing and his subsequent actions.

It is now two years since this patient was dismissed. He is now a deacon in his church; a most devoted husband; a total abstainer from alcoholic beverages, and associates only with the very best people and is a highly respected member of his community.

District and County Societies

District Editors

- | | |
|---------------------------------|--------------------------------|
| 1. McGee, H. H., Savannah. | 7. McCord, M. M., Rome. |
| 2. Watt, C. H., Thomasville. | 8. Carter, D. M., Madison. |
| 3. Greer, Chas. A., Oglethorpe. | 9. Bennett, J. C., Jefferson. |
| 4. Williams, O. O., West Point. | 10. Lee, F., Lansing, Augusta. |
| 5. Pitts, Jno. B., Atlanta. | 11. Mixson, W. D., Waycross. |
| 6. Thompson, O. R., Macon. | 12. Cheek, O. H., Dublin. |

SEVENTH DISTRICT MEDICAL SOCIETY MET IN MARIETTA APRIL SEVENTH

The Seventh District Medical Society met at the Marietta Golf Club House in Marietta, Georgia, as the guests of the Cobb County Medical Society, Wednesday April 7th, 1926, Dr. Trammell Starr, President and Dr. M. M. McCord, Secretary.

Invocation was delivered by Hon. J. Z. Foster who also delivered the address of welcome in behalf of the City of Marietta. Dr. C. T. Nolan extended the welcome for the local medical fraternity. The response to the addresses of welcome was delivered by Dr. J. P. Bowdoin of Adairsville.

The minutes of the last meeting which was held in September at Calhoun were read by the secretary and adopted.

Dr. J. P. Bowdoin made the report for the committee on public health and legislation.

The scientific program was next taken up as follows:

1. Some of the Commoner Injuries of the Eye. H. J. Ault, Dalton, Read in his absence by E. H. Bradley of Chattsworth.

2. Report Case Neoplasm Urinary Bladder of Infant with Removal. John L. Garrard, Rome.

3. Discussion Case of Purpura Hemorrhagica. In absence of P. O. Chaudron the discussion was led by W. L. Funkhouser of Atlanta, and followed by M. M. McCord, W. E. Benson, T. E. McBryde, J. L. Howell, and Dr. Lederhall of Emory University.

4. Past and Present Medicine, J. H. Hammond, LaFayette.

5. Report of Case of Esophageal Obstruction, W. H. Lewis, Rome. Discussed by W. E. Benson of Marietta and A. H. Bunce of Atlanta.

6. Respiratory Disturbance of Heart Failure. In absence of Stewart R. Roberts was delivered by Dr. Oppenheimer of Emory

University. Discussed by W. H. Lewis and D. S. Middleton.

7. Report of Interesting Case, W. E. Benson, Marietta. Discussed by D. S. Middleton, of Rising Fawn.

8. Demonstration in X-Rays in Osteomyelitis. J. E. Radeliffe, Rome. Discussed by W. H. Lewis, and W. H. Perkinson.

9. Presidents Annual Address. Trammell Starr, Dalton.

The society gave a rising vote of thanks to the members of Cobb County Society and their ladies for the most wonderful entertainment furnished on the occasion. Not one thing was left undone. The luncheon was the very best and the musical selections rendered by Mrs. Elder and Mrs. Benson were highly enjoyed.

A motion was made by Dr. W. L. Funkhouser and passed requesting the secretary to communicate with the local secretaries of the district in the various county societies in an effort to get the members to acquaint the local members of the legislature with the provisions of the bill for the conservation of child life.

Floyd County and Bartow County Societies each extended invitations for the next meeting of the district society which will be the last Wednesday in September. Bartow County won, so the officers expect to go one hundred strong to Cartersville next September.

In the election of officers for the ensuing year the following were elected:

For President, Dr. W. E. Benson, Marietta, For Vice President, Dr. W. E. Wofford of Cartersville. The secretary is elected for two years so the present secretary holds over until next April.

There being no further business the society adjourned at 4:30 P.M.

M. M. McCord,
Secretary.

MEDICAL SOCIETIES OF THREE COUNTIES HAVE JOINT MEETING

On April 15th the Medical Societies of Burke, Jenkins and Richmond Counties held a joint meeting in the Masonic Temple at Waynesboro. A delightful barbecue was served and the members of the Burke County Medical Society proved themselves to be wonderful hosts. The meeting was well attended and enjoyed to the limit by all who were so fortunate as to be there. They presented an excellent program and the discussions were far above the average.

The Pituitary Gland, Pituitrin. Its Indications and Contra-Indications in Obstetrics, by Dr. J. M. Cook, Sardis, was an interesting and instructive paper and took up in detail the anatomic structure and function of the Pituitary Gland and discussed fully the nature of the Pituitary extracts. Dr. Joseph Akerman, University Hospital, Augusta, led in discussion of this paper which was followed by Doctors A. C. Wade, Augusta; A. J. Kilpatrick, Augusta; S. T. R. Revell, Louisville, and C. Thompson, Millen.

Diverticulitis from the Standpoint of the Surgeon, by Dr. W. W. Battey, Augusta. This paper took up in detail the diagnosis of the disease and accompanied with a helpful series of drawings. Dr. Ralph H. Chaney, Augusta, led in discussion, followed by Doctors C. J. Montgomery, Augusta; Paul Eaton, Augusta and John Sherman, Augusta.

Diverticulitis of the Colon, by Dr. J. D. Gray, Augusta. He described the findings of the disease and the usual incidence of it and laid particular stress on the medical treatment. Dr. Robt. Miller, Waynesboro, led in discussion of this paper. Doctors Paul Eaton, C. J. Montgomery and John Sherman followed with general discussions.

Local Anesthesia from the standpoint of the General Practitioner, by Dr. Cleveland Thompson, Millen. Dr. J. H. Morton, Waynesboro, led in discussion; followed by Doctors Hugh N. Page, G. T. Bernard, John Wright, J. D. Gray, J. Akerman and T. E. Oertel.

COUNTY SOCIETIES REPORTING FOR 1926

Turner County Medical Society—100%

The Turner County Medical Society announces the following officers for 1926:

President—H. M. Bellflower, Sycamore.
Vice-President—F. W. Rogers, Ashburn.
Secretary-Treasurer—J. H. Baxter, Ashburn.

Coweta County Medical Society

The Coweta County Medical Society announces the following officers for 1926:

President—T. B. Davis, Newnan.
Vice-President—M. F. Cochran, Newnan.
Secretary-Treasurer—A. A. Barge, Newnan.

Gordon County Medical Society

The Gordon County Medical Society announces the following officers for 1926:

President—Z. V. Johnston, Calhoun.
Secretary-Treasurer—R. B. Chaitain, Calhoun.
Delegate—W. R. Richards, Calhoun.
Board of Censors—C. F. McLain, Z. V. Johnston, M. A. Aeree.

Gwinnett County Medical Society

The Gwinnett County Medical Society announces the following officers for 1926:

President—W. T. Hinton, Dacula.
Vice-President—N. H. Pierce, Suwanee.
Secretary-Treasurer—D. C. Kelley, Lawrenceville.
Board of Censors—Chalmers Hinton, W. P. Ezzard, A. D. Williams.

Murray County Medical Society

The Murray County Medical Society announces the following officers for 1926:

President—M. P. Bates, Ramhurst.
Vice-President—R. H. Bradley, Chatsworth.
Secretary-Treasurer—E. H. Dickie, Chatsworth.

Madison County Medical Society

The Madison County Medical Society announces the following officers for 1926:

President—H. G. Banister, Ila.
Secretary-Treasurer—W. D. Gholston, Danielsville.
Delegate—W. D. Gholston, Danielsville.
Alternate—H. G. Banister, Ila.
Board of Censors—G. L. Loden and R. J. Westbrook.

Monroe County Medical Society

The Monroe County Medical Society announces the following officers for 1926:

President—B. L. Smith, Forsyth.
Vice-President—R. C. Goolsby, Jr. Forsyth.
Secretary-Treasurer—W. J. Smith, Juliett.
Delegate—G. L. Alexander, Forsyth.
Alternate—R. C. Goolsby, Jr., Forsyth.
Board of Censors—J. O. Elrod, R. C. Goolsby, Sr., G. L. Alexander.

Ocmulgee County Medical Society

The Ocmulgee County Medical Society announces the following officers for 1926:

President—W. A. Coleman, Eastman.
Vice-President—R. L. Whipple, Cochran.
Secretary-Treasurer—Albert R. Bush, Hawkinsville.
Delegate—J. C. Wall, Eastman.
Alternate—J. M. Smith, Cochran.
Board of Censors—W. H. Pirkle, I. J. Parkerson and E. C. Brown.

Polk County Medical Society

The Polk County Medical Society announces the following officers for 1926:

President—E. H. Richardson, Cedartown.
Vice-President—T. E. McBryde, Rockmart.
Secretary-Treasurer—P. O. Chaudron, Cedar-town.

Walton County Medical Society

The Walton County Medical Society announces the following officers for 1926:

President—H. L. Upshaw, Social Circle.
Vice-President—J. B. H. Day, Social Circle.
Secretary-Treasurer—J. K. McClintie, Monroe.

Macon-Taylor Counties Medical Society

The Macon-Taylor Counties Medical Society announces the following officers for 1926:

President—R. C. Montgomery, Marshallville.
Vice-President—D. B. Frederick, Marshallville.
Secretary-Treasurer—F. M. Mullino, Montezuma.

Delegate—C. H. Richardson, Montezuma.
Board of Censors: S. H. Bryan, C. H. Richardson, and R. C. McGill.

Ben Hill County Medical Society

The Ben Hill County Medical Society announces the following officers for 1926:

President—Thomas E. White, Fitzgerald.
Vice-President—Charles Wilcox, Fitzgerald.
Secretary-Treasurer—L. S. Osborne, Fitzgerald.
Delegate—W. P. Coffee, Fitzgerald.
Alternate—D. B. Ware, Fitzgerald.
Board of Censors—E. J. Dorminy and D. B. Ware.

Wilkes County Medical Society

The Wilkes County Medical Society announces the following officers for 1926:

President—H. M. Sale, Rayle.
Vice-President—O. S. Wood, Washington.
Secretary-Treasurer—H. T. Harris, Washington.
Delegate—L. R. Castile, Metasville.
Alternate—C. E. Wills, Washington.
Board of Censors: T. C. Clodfelter, A. W. Simpson, and L. R. Castile.

Laurens County Medical Society

The Laurens County Medical Society announces the following officers for 1926:

President—Sidney Walker, Dublin.
Vice-President—A. T. Coleman, Dublin.
Secretary-Treasurer—O. H. Cheek, Dublin.
Delegate—J. E. New, Dexter.
Alternate—J. W. Edmondson, Dublin.
Board of Censors—W. C. Thompson, C. A. Hodges and R. J. Chappell.

Glynn County Medical Society

The Glynn County Medical Society announces the following officers for 1926:

President—J. A. Dunwoody, Brunswick.
Vice-President—R. E. L. Burford, Brunswick.
Secretary-Treasurer—J. W. Simmons, Brunswick.

NEWS ITEMS

The graduating exercises of the senior class, 1926, of the Piedmont Hospital School of Nursing were held at the Atlanta Woman's Club, Wednesday evening, May 12. There were eleven in the graduating class. Program as follows: Prayer by Dr. W. W. Memminger, Rector All Saints Church; Address by Miss Jane Van DeVrede, Secretary of the Registered Nurse's Association; Awarding of Hospital Pins by Dr. Wm. F. Shallenberger; Distribution of Diplomas by Dr. Floyd W. McRae.

Dr. Earl H. Floyd announces the opening of his office, Suite 729 Hurt Building, Atlanta, Georgia. Practice limited to Urology and Genito-Urinary Surgery.

Dr. C. L. Davis, formerly of Patterson, Georgia, has moved to Okeechobee, Florida and engaged in a partnership business with Dr. McDermid of that city.

Dr. M. M. McCord, Rome, Georgia, has suggested a "Tenth Reason", why physicians should be members of the Medical Association of Georgia, as follows: "Membership in your State and County Societies increases your self-respect among your medical friends as well as the public at large."

Dr. and Mrs. J. H. McClure, Cornelia, entertained the members of the Habersham County Medical Society and the Woman's Auxiliary at their home, Thursday, March 5. An interesting and important meeting was held. Dr. O. N. Harden read a very instructive paper on the treatment of Pneumonia.

Dr. R. V. Lamar, Augusta, delivered an address before the Lions Club on Pasteur's Life and work; which was considered one of the most interesting, entertaining and instructive ever delivered in Augusta before any civic body.

Dr. W. W. Rutland, LaGrange, Health Officer for Troup County, was complimented by Dr. M. E. Winchester, Atlanta, Director of County Health Work, after his visit to Troup County and inspection of the work of Dr. Rutland.

Dr. C. H. Richardson, Montezuma, was honored by Mrs. Richardson with a party on March 4; celebrating his sixty-seventh birthday. Dr. Richardson has practiced medicine in that section since 1885.

Miss L. G. Mitchell in an address before the Kiwanis club of Americus, said: "The Americus and Sumpter County Hospital has the unique distinction of being the first, and probably the only hospital in the United States, built, owned and controlled by women".

Dr. A. H. Dellinger of Rome leaves on the 13th of April for the New York Polyclinic Medical School and Hospital where he will take a course in

operative surgery. Dr. Dellinger is very fortunate in being appointed as first assistant in surgery at the hospital. He will return about August 1st and resume his practice and hold the position as a member of the active surgical staff of Frances-Berrien Hospital.

Drs. W. J. Shaw, G. B. Smith and R. C. Maddox, of Rome, have moved their offices from First National Bank Building to Harbin Hospital.

Frances-Berrien Hospital in Rome is making plans to enlarge the hospital, put in new elevator, additional operating room, regular laboratory technician, X-Ray Assistant and Historian. Many changes will be made within the next two months to bring the institution to the highest standard of efficiency and meet all the requirements for admittance to the American Hospital Association.

Dr. C. H. McArthur of Rome is taking a twelve months course in eye, ear, nose and throat work at a St. Louis Hospital and expects to return to Rome October the first to practice.

Dr. W. H. Parker has lived at Toccoa for a number of years where he held the confidence and esteem of the people of that section and enjoyed a good practice. He has recently moved to Arp, near Fitzgerald.

Dr. F. G. Colvin, formerly of Thomaston and Secretary-Treasurer of McDuffie County Medical Society, has moved to Ray-City, Berrien County.

Dr. A. A. Barge, Newnan, has just recently been elected Secretary-Treasurer of Coweta County Medical Society and was not content with their usual number of physicians being members of the Association. He has reported more new members for one month than any other secretary in the state.

Dr. C. J. Maloy, Helena, had the misfortune to lose his home, clothing, furniture and library by fire on April 9th.

Dr. J. S. Stewart, Jr. formerly of Athens and President of the Clarke County Medical Society, has moved to Miami, Florida. Dr. J. D. Applewhite is acting President of the society.

The Clarke County Medical Society unanimously endorsed the resolutions of the American Medical Society in regard to the treatment of individuals and world war veterans by federal agents rather than by their local practicing physicians.

The Houston County Medical Society meets the First Monday evening in each month. Their last meeting was at the Perry Hotel as the guests of their President Dr. J. W. Story.

Dr. R. S. Bradley, formerly of Adairsville, and his estimable family are being welcomed in their new home in Dalton, where he will continue the general practice of medicine.

The Monroe Hospital, Monroe, Walton County, celebrated its first anniversary on Friday, March 12. A cordial invitation was extended to the public.

Dr. H. A. Rogers, Jeffersonville, has been appointed physician and surgeon for the Macon, Dublin & Savannah Railroad.

Dr. J. Neal Willis will be associated with Blackman Health Resort. He was resident physician at Grady Hospital.

Drs. Frank K. Boland, President, and Allen H. Bunce, Secretary-Treasurer, of the Medical Association of Georgia, attended the meeting of the Second District Medical Society at Tifton on April 9 and read papers, "Surgery of the Chest" and "Practical Points in the Diagnosis and Treatment of Kidney Diseases", respectively.

Dr. L. A. Smith, Quitman, has been appointed surgeon for the South Georgia Railroad.

Dr. J. C. Wellborn has been appointed Health Commissioner for the city of Gainesville.

The University Hospital, Augusta, treated 60,-136 patients in 1925. Twenty two states were represented among the patients treated.

Dr. William Rawlings of Sandersville has returned from John Hopkins Sanitarium where he has been for treatment for several weeks.

Dr. W. M. Fresh, Toccoa, announces the opening of offices over Ridgeway-Moore Drug Store with complete electrical equipment for the treatment of various diseases.

Miss Lillian Kinnedy announces the opening of a studio at the Academy of Medicine, Atlanta. Attention will be given to anatomical, pathological, operative technique and other scientific drawings.

Dr. J. W. Oden, formerly of Milledgeville and assistant physician at the Georgia State Sanitarium, has moved to Augusta and is the head physician at the Children's Hospital for the feeble-minded.

The Second District Medical Society at a meeting held in Tifton on April 9 elected Dr. J. A. Summerlin, of Pelham, President; Dr. W. S. Cook, of Albany, Vice-President; Dr. C. H. Watt, of Thomasville, Secretary.

BOOKS RECEIVED

Modern Methods of Amputation, by Thos. G. Orr, A.B., M.D., F.A.C.S., Professor of Surgery, University of Kansas. One hundred twenty-five illustrations; containing 114 pages. Publishers: The C. V. Mosby Company, St. Louis. Price: Cloth, \$3.50.

Handbook of Diseases of the Rectum, by Louis J. Hirschman, M.D., F.A.C.S., Ex-Chairman, Section on Gastro-Enterology and Proctology, A. M. A. Containing 252 illustrations, with five colored plates, 403 pages. Fourth Edition revised and rewritten. Publishers: The C. V. Mosby Company, St. Louis. Price: Cloth, \$6.50.

Young's Practice of Urology, based on a study of 12,500 cases, by Hugh H. Young and David M. Davis with the Collaboration of Franklin P. Johnson. Over 1,000 illustrations, 20 being Colored Plates by William P. Didusch. Volume I containing 746 pages. Volume II containing 738 pages. Publishers: W. B. Saunders Company, Philadelphia. Price: Cloth, \$25.00 net.

Therapeutics Materia Medica and Pharmacy: The Special Therapeutics of Disease and Symptoms, the Physiological and Therapeutical Actions of Drugs, The Modern Materia Medica, Official and Practical Pharmacy, Prescription Writing, and Antidotal and Antagonistic Treatment of Poisoning, by Sam'l O. L. Potter, M.D., formerly Professor of the Principles and Practice of Medicine in the Cooper Medical College of San Francisco. Fourteenth Edition. Containing 972 pages. Publishers: P. Blakiston's Son & Co., 1012 Walnut Street, Philadelphia. Price: Cloth, \$8.50.

BOOK REVIEW

Collected Papers of the Mayo Clinic and The Mayo Foundation. Philadelphia. W. B. Saunders Co. 1925.

This volume of papers is always awaited with interest and received with general approbation. It represents the collected work of all departments of the Mayo Clinic, arranged in sections according to the subject matter.

It contains all the 1924 publications, but such articles as are not of general interest are abridged or abstracted.

Among the outstanding contributions should be mentioned a series of articles by Mann, Bollman and others on clinical and experimental studies of diseases of the liver. In these papers liver function tests, the phys-

iology of liver secretion, effect of removal of the liver on urea formation, the formation of bile pigment, and preoperative preparation of patients with obstructive jaundice are discussed in detail both from the clinical and experimental side.

The diuretic action of novasural is reviewed in two articles, and the value of this drug, as well as its dangers, are pointed out.

The articles by Boothby on the treatment of exophthalmic goitre with iodine, and of Rowntree on Addison's disease deserve special notice.

The papers of a more general nature by Charles and William Mayo will be read with interest because of their breadth of vision and their store of sound and fundamental medical knowledge.

The volume contains 215 papers by 160 members of the Staff. This annual publication should be in the reference library of every surgeon, internist and practitioner, since it serves as the best year book of practical and experimental medicine in the language and as the collected medical thought of the world's largest clinic.

D. C. ELKIN.

The Development of Our Knowledge of Tuberculosis, by Lawrence F. Fliet, M.D., L.L.D. Philadelphia. 1925.

The author very thoroughly discusses his subject beginning with the code of Hammurabi 2250 B.C. until the 20th century. He mentions many workers who are practically unknown today. Among others he gives credit to Aretaeus, Richard Morton, Auenbrugger, William Stark, Hufeland, Potal, Bayle, Laennec, Virchow, Villemin, Koch, Theobald Smith. The work is impartial and complete. Perhaps a little too much chaff with the wheat, but worthy of close reading.

J. K. FANCHER, M.D.

A Text-Book of Physiology, by Wm. D. Zoethout, Ph.D. C. V. Mosby Co. Philadelphia. 1925.

This second edition of the author is admirably adapted to the need of the student for a practical reference book of physiology, not too voluminous for class work, yet not elementary in its briefness.

Clearness of expression and the elimination of unnecessary ambiguity of rhetorical construction, recommends this work, as well as the good judgement shown in the selection of illustrations, plates and drawings.

JAMES J. MARTIN, M.D.

Manual of Psychiatry. For the Medical Student and General Practitioner. By Paul E. Bowers, M.D., Examiner in Lunacy, State of California; Lecturer in Neuropsychiatry, Post-Graduate Medical School of the University of California, Los Angeles. Octavo Volume of 365 pages. Philadelphia and London: W. B. Saunders Company. 1924. Cloth, \$3.50 net.

This book was intended for the medical student, the general practitioner, and those interested in this subject. It is a good reference book and covers the entire subject of mental diseases in a brief and concise manner.

Psychiatry is a comparatively young subject and one that has been sadly neglected by the average physician, but if he will read and re-read this manual he may obtain at least a working knowledge of the subject.

The correct interpretation of mental symptoms and the intelligent treatment of mental disorders taxes the ingenuity of the experienced physician, and he must help to erase from the mind of the average layman the idea that any one suffering from mental symptoms should be immediately locked up. The classification and discussions of the various mental disorders that this volume sets forth will enable the physician to act more wisely in many delicate situations.

The author's discussions on psychoses, psychoneuroses and neuroses are well arranged. In the treatment of these he emphasizes the value of physiotherapy, psychoanalysis, vaccine and serum therapy, endocrine therapy, purgatives, arsenic, etc.

In the chapter on "Psychoses Due to Alcohol" we wonder what authority the author has for the statement that "The feelings of physical and mental exhaustion are only blunted and numbed by alcohol". The value of a little alcohol in prolonged physical and mental strain, and particularly in wasting diseases, must not be discredited. For it has a valuable sustaining power, it supplies a readily absorbable food, and it tends to lessen the excitability and the wear and tear upon the nervous system. However, we must admit that the use of excessive amounts of alcohol will eventually bring about mental symptoms in some individuals.

RAIFORD T. WARNOCK, M.D.

OBITUARY

Dr. H. F. Harris, of Atlanta, died March 17th at Jefferson Medical College in Philadelphia. He was stricken with paralysis while at work in the laboratory on a cure for cancer. He was born in Chambers County, Alabama in 1867 and in early youth moved to Carrollton, Georgia. He was a son of late Samuel W. Harris, who was judge of the Coweta Circuit for perhaps thirty years. Dr. Harris graduated from Jefferson Medical College in 1890. He was secretary of the Georgia State Board of Health from 1903 to 1917 and directed the campaign work against pellagra. His ambition in life was to do something for humanity, he cared but little for personal gain. He married Miss Austin of Milledgeville in 1909. He is survived by his wife, one son and one daughter; three sisters, Mrs. Hay, Carrollton, Ga.; Mrs. Stokeley, Shreveport, La.; Mrs. Montgomery, Charlotte, N. C. Funeral services were held at his home on Wesley Avenue, Dean Thomas H. Johnston of St. Phillips Cathedral officiated, and interment was private in Crest Lawn Mausoleum.

Dr. W. C. Jarnagan died March 29th at the age of seventy-four, after an extended illness at his home, 682 West Peachtree Street, Atlanta. Dr. M. Ashby Jones conducted the funeral services from the home and interment was in West View. He was Chairman of the Board of Directors of the Atlanta Hospital at the time of his death, an institution which Dr. Jarnagan and Dr. Thomas H. Hancock organized. He came from a prominent east Tennessee family. He was married to Miss Sallie DuPre, of Memphis, and after her death to Miss Erskine Richmond of Mississippi. He is survived by his widow and one daughter, Mrs. Sam W. Forgy, Jr., of Miami Beach, Florida.

Dr. J. W. Blosser died at his home, 224 Myrtle Street, Atlanta, April 11th at the age of eighty-one years. He was born in Edom, Virginia in 1844 and received his literary education in his home state and graduated from the Cincinnati College of Medicine. Very soon afterwards he began to manufacture cold and catarrh cigarettes. He moved to Atlanta in 1891 and resided here until the time of his death. Dr. Blosser entered the ministry after practicing medicine for a number of years and was a leader in mission work. He was a member of the Atlanta Evangelical Minister's Association and a member of St. Mark's Methodist Church. Funeral services were conducted by Dr. J. B. Mitchell from the home and interment was in West View Cemetery.

Dr. F. F. Floyd, of Statesboro, died at his home March 11th of pneumonia. He was a prominent physician, founder and owner of the Statesboro Sanitarium. Dr. Floyd was born in Liberty County in 1875. He graduated in medicine from the University of Georgia Medical College, 1898, and did post-graduate work in New York. He was captain in the World War and for some time president of the Bulloch County Medical Society, and a prominent member of the Medical Association of Georgia until his death. Funeral services were conducted from the Primitive Baptist Church. Dr. Floyd is survived by his wife, one son, Dr. Waldo Floyd, of Statesboro; two daughters, Mrs. Peter Emmitt, of Savannah and little Miss Francis Felton.

Dr. Thomas N. Courson, Devereux, died March 9th at his home after a long illness. He was a leading physician and one of the wealthiest men of Hancock County. He took an active interest in every movement for the improvement and welfare of his community. He was sixty years of age and a native of Hancock County. Dr. Courson was a member of the Masonic fraternity and was buried with Masonic honors.

Dr. Henry Morton Hall, Cedartown, died at his home on March 14th of myocarditis. He was born in Columbus, Georgia, January 26, 1870. He was surgeon in the United States Army in the Philippine Islands; Commander of Base Camp United States Army Ambulance Service with the French Army. He was overseas for nearly two years. Dr. Hall was Lieutenant-Colonel, Medical Reserve Corps, United States Army; first local Commander of the American Legion; decorated by American and French Governments; former mayor of Cedartown; local assistant surgeon for the Central of Georgia Railroad; partner in the Hall-Chaudron Hospital, Cedartown, Georgia; member of the Polk County Medical Society and the Medical Association of Georgia. He was buried in the city cemetery in Cedartown with Military honors by the Joseph S. Brewster Post, No. 86, American Legion.

Dr. Chas. F. Fickling, Butler, died at his home March 16th from apoplexy. He was fifty-five years of age, a member of the Macon-Taylor Counties Medical Society and the Medical Association of Georgia, and the Methodist Church. He took a prominent part in civic work. Funeral and interment was in Butler. He is survived by his widow and two children, Charles, Jr., and Laurette.

Dr. Wallace Matthews, Quitman, was found dead in his office March 11th. He was a prominent physician and surgeon and known throughout southwest Georgia. He was a member of the Brooks County Medical Society, and Medical Association of Georgia. Funeral was conducted from his home and interment was in Quitman. He is survived by his widow and two sons.

Dr. J. A. McCrea, Tifton, died at his home March 24th after a long illness. He was born near Americus in 1849 and immediately after he graduated in medicine located in Tifton. He was the oldest member of the Methodist Church and perhaps the oldest man in Tifton. His friends of long standing acted as pall bearers and the physicians of Tifton formed an honorary escort. Funeral services were held from the Methodist Church and interment was in Oak Ridge cemetery. His pastor, Rev. J. H. House, conducted the services. He is survived by his widow, two daughters and five sons.

Dr. W. E. Dudley, Savannah, died March 20th very suddenly. He was very active in his work for the government and was in the Marine Health Service in Havana, Cuba, when the battleship Maine was sunk. He has been connected with the Marine Hospital in Savannah for a number of years. Interment was in Hill Crest cemetery, Savannah.

COMMUNICATIONS

To the Editor:

At the last meeting of the Board of Trustees of the Fulton County Medical Society, the following men were appointed on a committee to investigate the matter of establishing an exchange in the Academy of Medicine Building:

Dr. Theo. Toepel, chairman.

Dr. W. E. Person.

Dr. M. T. Benson.

Dr. A. H. Bunce.

Dr. E. D. Shanks.

Yours very truly,

GRADY E. CLAY, M.D.,
Secretary-Treasurer.

To the Editor:

About two years ago our Clarke County Tuberculosis Association realized that one of the greatest needs in the fighting of the disease was a sanatorium in which patients could take the cure near home. So they made a successful effort to float bonds for the erection of a small one here.

Fairhaven, the recently completed sanatorium, is beautifully situated a mile and a half beyond the city limits on a paved road. It is on a pine knoll in a seventy-six acre tract.

It is equipped with all modern conveniences and the plans were approved by Mr. T. B. Kibner, the Institutional Director of the National Association. It is planned primarily for the accommodation of Clarke County patients, but others will be admitted when there is a vacancy. A charge of \$15.00 per week is made, to cover all medical and institutional care, and laundry.

The sanatorium has been in operation for two months, and from the progress being shown by the patients we feel fully justified in our resolution to make of it a curative institution.

We feel that there are probably others who would be glad to know of this haven where they can receive treatment without having to go so far from home. For that reason I am writing you this letter, so that if you know of any such cases you can tell them of Fairhaven. For further information they may address the Superintendent.

In addition let me say how glad we should be to have you visit the institution at any time, for it is our one desire to be as helpful as possible in eradicating this disease from Georgia.

I remain,

Very truly yours,
MRS. E. R. HODGSON, JR.,
Chairman of Trustees,
Athens, Georgia.

To the Editor:

I am enclosing for your information two pamphlets that have just come from the press, feeling that you would be interested. Please read them and especially the Foreword in each.

I am intensely interested in the Standards of Prenatal Care. We lose too many of our mothers in Georgia during childbed; the average is two per day.

We want you to use the silver nitrate solution in wax ampules that we are making. They are free for the asking and the law says that they must be used. Do not allow a case of ophthalmia neonatorum to develop in your practice; you might have action brought against you by some parent.

A new Baby Book is now on the press and will be ready for delivery very soon. If you will send us the names and addresses of your mothers with new babies we will be glad to

mail the Baby Book with your compliments.

We also have a splendid little book on Prenatal Care that we would like to have in the hands of every prospective mother. If you will from time to time notify us of such we will also mail this book with your compliments.

Be sure to report promptly all your births. A permanent record is very essential and is greatly to be desired. We hope you will be among the 100% perfect physicians on filing birth reports.

The Division of Maternity and Infant Hygiene is at your service, Doctor; we want you and your patients to be benefited by our work.

Sincerely,

JOE P. BOWDOIN, M.D.,
Director, Division of Child Hygiene,
Special Agent, Children's Bureau.

To the Editor:

Will you please call attention in the next issue of the Journal to the National Child Health Day, May 1st.

I sincerely hope that each County Society will interest itself in the program for equal rights for babies. The ideal to which we should drive is that there should be no child in America that has not been born under proper conditions; that does not live in hygienic surroundings; that ever suffers from under nutrition; that does not have prompt and efficient medical attention and inspection; that does not receive primary instruction in the elements of hygiene and good health.

Child Health Day is set aside as one day in the year in which we can give expression to these ideals.

We must have the Medical Societies as a unit. Perhaps our greatest allies would be in our Woman's Auxiliary; they could do so much to insure a good program in each community where they are organized. Will you not request them to give us their valuable assistance?

Sincerely yours,

JOE P. BOWDOIN, M.D.,
Director, Division of Child Hygiene,
Special Agent, Children's Bureau.

AMERICAN BOARD OF OTOLARYNGOLOGY

In addition to the examination held at Dallas on April 19th and at San Francisco on April 27th, another examination will be held at the Otolaryngological Clinic, Royal Victoria Hospital, Montreal, on Tuesday, June 1st.

Information may be secured from the Secretary, Dr. H. W. Loeb, 1402 South Grand Boulevard, St. Louis, Missouri.

HOW TO TAKE CARE OF HYPODERMIC SYRINGES AND NEEDLES

Recently a pamphlet was published on "Standardizing on Sizes and Makes of Hypodermic Syringes and Needles," which contains a large amount of information valuable to all practicing physicians.

It gives many suggestions as to the gauge and length of needles and the size of the syringes which are generally used for the various operations, which conclusions were reached after consultation with some of the foremost surgeons in the country.

There are also many notes regarding the care and sterilization of needles and syringes and the pamphlet also outlines the comparative merits and cost of steel, nickeloid, gold and platinum-iridium needles.

Any physician interested can secure a complimentary copy by writing to Becton, Dickinson & Co., Rutherford, N. J.

TRUTH ABOUT MEDICINES, NEW AND NON-OFFICIAL REMEDIES

Scarlet Fever Streptococcus Toxin for Tick Test—Squibb. It is prepared by the method of Drs. Dick by license of the Scarlet Fever Committee, Inc. Marketed in packages of one vial containing sufficient toxin for ten tests; in packages of one vial containing sufficient toxin for 100 tests. E. R. Squibb & Sons, New York.

Scarlet Fever Streptococcus Toxin—Squibb. It is prepared by the method of Drs. Dick by license of the Scarlet Fever Committee, Inc. Marketed in packages of five vials of toxin containing increasing doses; in packages of fifty vials, representing ten immunizations. E. R. Squibb & Sons, New York.

Concentrated Pollen Extracts—Swan-Myers. In addition to the products listed in Journal A. M. A., May 30, 1925, p. 1634, the following has been accepted: Mixed Ragweed Concentrated Pollen Extract—Swan-Myers. Swan-Myers Co., Indianapolis.

Loeser's Intravenous Solution of Calcium Chloride and Loeser's Intravenous Solution of Sodium Thiosulphate—An explanation. Some time ago the Council reported that Loeser's Intravenous Solution of Calcium Chloride and Loeser's Intravenous Solution of Sodium Thiosulphate had been found ineligible for New and Non-official Remedies. The New York Intravenous Laboratory objected to these reports. It particularly resented that part of the heading of these reports which declared the products "Not Accepted" for New and Non-official Remedies, because it did not request consideration of these products. Since the firm expressed the belief that readers of the reports may be led to assume that it had requested the Council to consider these preparations, the Council explains that the firm did not take this step. (Jour. A. M. A., Jan. 16, 1926, p. 217.)

Some More Medical Frauds—The postal authorities have recently barred a piece of asthma cure quackery and two lost manhood fakes from the use of the mails. The first is the Asthma-Tab Laboratories, Inc., of Kansas City, Mo., which exploited a product to the public, shown by the A. M. A. Chemical Laboratory to be essentially potassium iodide and arsenic trioxide. The two lost manhood concerns were Hart & Co. which put out a device called the Perfection Developer and B. & V. S. Manufacturing Co. which exploited the "Burt Vacuum Tube." (Jour. A. M. A., Jan. 16, 1926, p. 218.)

Manola—Hymosa—Phytoline—Succus Cineraria. "Medical Suggestions" is a pamphlet issued by the Walker Pharmacal Co. and The Manola Co., which apparently are subsidiaries to the Luyties Pharmacal Co., St. Louis. The publication contains articles which are puffs for the products sold by these companies, together with testimonials from physicians who say that they have used them. Manola has been exploited as a "tonic, reconstructive, and tissue builder." It now contains some strychnine and arsenic which takes it out of the class of homeopathic nostrums, but certainly does not justify the promiscuous use which is advocated. Hymosa was found to be essentially a solution of salicylates exploited as a remedy for rheumatism. Phytoline is a preparation of pokeberry juice advertised as a powerful antifat. Succus Cineraria Maritima (Walker) is recommended for use in cataract by the Walker Chemical Co. which in 1916 pleaded guilty to the charge that the claims for this nostrum were false and fraudulent. (Jour. A. M. A., Jan. 16, 1926, p. 220.)

Streptococcus Vaccine and Mixed Staphylococcus—Acne Vaccine Omitted from N. N. R. The Council on Pharmacy and Chemistry announces that all streptococcus vaccine and all vaccine mixtures containing staphylococci and acne bacilli have been omitted from New and Non-official Remedies because experience with these preparations has not established the value which it was hoped they possessed and because recognized experts to whom the Council looks for help have concluded that these preparations have no field of usefulness. (Jour. A. M. A., Jan. 23, 1926, p. 294.)

Restriction of the Sale of Barbital (Veronal). While no laws have been passed in the United States against the sale of barbital, the New York sanitary code prohibits its sale without a prescription. In Useful Drugs it is stated that many cases of poisoning, some fatal, occur from the indiscriminate use of barbital by the laity. (Jour. A. M. A., Jan. 23, 1926, p. 297.)

The following articles have been accepted by the A. M. A. Council on Pharmacy and Chemistry: Eli Lilly & Co.—Coco-Quinine.

Parke, Davis & Co.

Aster Pollen Protein Extract Diagnostic—P. D. & Co.; Barnyard Grass Pollen Protein Extract

Diagnostic—P. D. & Co.; Bermuda Grass Pollen Protein Extract Diagnostic—P. D. & Co.; Burweed Marsh Elder Pollen Protein Extract Diagnostic—P. D. & Co.; Chestnut Pollen Protein Extract Diagnostic—P. D. & Co.; Cocklebur Pollen Protein Extract Diagnostic—P. D. & Co.; Common Ragweed Pollen Protein Extract Diagnostic—P. D. & Co.; Corn Pollen Protein Extract Diagnostic—P. D. & Co.; Cosmos Pollen Protein Extract Diagnostic—P. D. & Co.; Crab Grass Pollen Protein Extract Diagnostic—P. D. & Co.; Dahlia Pollen Protein Extract Diagnostic—P. D. & Co.; Dandelion Pollen Protein Extract Diagnostic—P. D. & Co.; Halberd-Leaved Orache Pollen Protein Extract Diagnostic—P. D. & Co.; Giant Ragweed Pollen Protein Extract Diagnostic—P. D. & Co.; Indian Hair Tonic Pollen Protein Extract Diagnostic—P. D. & Co.; Johnson Grass Pollen Protein Extract Diagnostic—P. D. & Co.; June Grass Pollen Protein Extract Diagnostic—P. D. & Co.; Maple Pollen Protein Extract Diagnostic—P. D. & Co.; Marigold Pollen Protein Extract Diagnostic—P. D. & Co.; Orchard Grass Pollen Protein Extract Diagnostic—P. D. & Co.; Plantain Pollen Protein Extract Diagnostic—P. D. & Co.; Prairie Sage Pollen Protein Extract Diagnostic—P. D. & Co.; Rose Pollen Protein Extract Diagnostic—P. D. & Co.; Rough Marsh Elder Pollen Protein Extract Diagnostic—P. D. & Co.; Sage Brush Pollen Protein Extract Diagnostic—P. D. & Co.; Western Ragweed Pollen Protein Extract Diagnostic—P. D. & Co.; Western Waterhemp Pollen Protein Extract Diagnostic—P. D. & Co.; Wheat Pollen Protein Extract Diagnostic—P. D. & Co.; White Clover Pollen Protein Extract Diagnostic—P. D. & Co.; White Goose Foot Pollen Protein Extract Diagnostic—P. D. & Co.; Willow Pollen Protein Extract Diagnostic—P. D. & Co.; Wormwood Sage Pollen Protein Extract Diagnostic—P. D. & Co.; Yarrow Pollen Protein Extract Diagnostic—P. D. & Co.; Yellow Dock Pollen Protein Extract Diagnostic—P. D. & Co.

Protein Extracts Diagnostic—P. D. & Co., Group 28; Protein Extracts Diagnostic—P. D. & Co., Group 29; Protein Extracts Diagnostic—P. D. & Co., Group 30; Protein Extracts Diagnostic—P. D. & Co., Group 31.

Swan-Myers Company:

Mixed Ragweed Concentrated Pollen Extract—Swan-Myers.

E. R. Squibb & Sons:

Scarlet Fever Streptococcus Antitoxin Concentrated.

Scarlet Fever Streptococcus Toxin for Dick Test-Squibb.

Scarlet Fever Streptococcus Toxin-Squibb.

New and Non-Official Remedies

Boro-Chloretone.—A dusting powder composed of chloretone (New and Nonofficial Remedies,

1925, p. 91) 1 part; boric acid, 1 part; purified talc, 2 parts. Parke, Davis & Co., Detroit.

Powdered Whole Lactic Acid Milk—Merrell-Soule.—A modified milk preparation prepared from whole milk soured by the action of a culture of *Bacillus bulgaricus*. Each 100 Gm. contains approximately butter fat, 28 Gm.; protein, 26 Gm.; lactose, 33 Gm.; free lactic acid, 4 Gm.; ash, 6 Gm.; moisture, 3 Gm. When suitably mixed with water, powdered whole lactic acid milk—Merrell-Soule is said to be useful in the feeding of infants when a soured milk is indicated. Merrell-Soule Co., Syracuse, N. Y. (Jour. A. M. A., Dec. 5, 1925, p. 1811).

Ovarian Substance Desiccated—P. D. & Co.—The entire fresh ovary (including the corpora lutea) of the hog and cow, dried in vacuo and powdered. For a discussion of the actions and uses, see Ovary, New and Nonofficial Remedies, 1925, p. 251. The product is also marketed in the form of five grain tablets. Parke, Davis & Co., Detroit.

Ovarian Residue Desiccated—P. D. & Co.—The residue from the fresh ovary of the hog or cow after the removal of the corpora lutea, dried and powdered. Ovarian residue is used for the same conditions as those in which the entire ovarian substance is used. The product is also marketed in the form of capsules and tablets containing five grains. Parke, Davis & Co., Detroit.

Ampules Dextrose 50%, 20 cc.—Each ampule contains 20 cc. of a 50 per cent. solution of dextrose U. S. P. Swan-Myers Co., Indianapolis. (Jour. A. M. A., Dec. 12, 1925, p. 1891).

EXTRA-ABDOMINAL CONDITIONS SIMULATING ACUTE ABDOMINAL DISEASES

David Riesman, Philadelphia (Journal A. M. A., June 27, 1925), discusses those extra-abdominal diseases which may simulate acute abdominal conditions, pneumonia, pleurisy, pericarditis, coronary thrombosis, rupture of a dissecting aneurysm of the aorta, true angina pectoris, tabes dorsalis, uremia, tonsillitis, lead poisoning, hysteria, diabetes, thyrotoxicosis, angiospasm of the abdominal arteries, the so-called erythema group of diseases and herpes zoster, not only for the purpose of discussing the intra-abdominal causes of acute abdominal symptoms, but to point out those extra-abdominal conditions which, in their close mimicry of truly abdominal diseases, create diagnostic difficulties and lead to errors in judgment resulting in unwise and dangerous procedures.

SYMPATHECTOMY IN BRONCHIAL ASTHMA

Cervical sympathetic ganglion resection was done by M. A. Ramirez and E. H. Pool, New York (Journal A. M. A., June 27, 1925), in two cases of asthma. The patients had been under observation for a number of years. No improvement had resulted from the usual methods of treatment. These cases show the apparent futility of unilateral cervical sympathectomy in bronchial asthma. Bilateral sympathectomy was not attempted.

THE GROWING IMPORTANCE OF GELATINE IN INFANT FEEDING

Some time ago, Dr. Joseph Leidy, of Philadelphia, said: "The combination of gelatine and milk in infant feeding was long used by my father and the late Dr. W. Pepper. I have continued to use it during the past thirty years, and am of the opinion that it gives results when many other combinations fail."

In recent months the growing interest of the medical profession in gelatine has been noticeable. Doctors are reporting gratifying successes in preventing such infant ailments as milk colic, regurgitation, vomiting, diarrhoea, excessive gas formation and constipation by 1% addition of gelatine to the milk diet.

Thomas B. Downey, Ph.D., Fellow of the Mellon Institute, Pittsburgh, has by standard feeding tests, determined that the addition of pure, plain unflavored gelatine increased the nourishment obtainable from milk by about 23%.

In discussing the digestibility of milks, especially by infants and young children, Alexander and Bullowa have pointed out that the protein content may not be considered as a unity because it is composed of two proteins casein and lactoalbumin with entirely dissimilar properties. Casein is an irreversible colloid exceedingly susceptible to coagulation by acid and rennin, while lactoalbumin is reversible and serves to protect the former.

Analysis shows that mother's milk contains a high proportion of lactoalbumin, the casein being adequately protected. Mother's milk is resistant to coagulation by acids and rennin and its greater acceptability as the food for the infant is reflected by the low mortality where the young are breast fed. On the contrary, cow's milk contains a high proportion of casein and relatively little lactoalbumin; it is poorly protected. In consequence, the casein of cow's milk is very susceptible to coagulation by acids and rennin. The mere coagulation of the casein is not the whole story, because the coagulum carries down much of the fat present, yielding masses that have a tendency to cohere and are of a texture that is quite resistant to penetration by the digestive juices. The voiding of such masses occurs too frequently in artificial feeding; nutrients are lost to the organism and it is quite probable that decomposition products of an undesirable nature are formed within these undigested curds.

This is in no way a reflection on the great nutritive value of cow's milk which is indis-

pensable but simply emphasizes the deterrent condition it meets in the human stomach which must be neutralized to insure the complete assimilation of the milk nutriment. Theoretically the employment of gelatine in the child dietary is sound, and laboratory experimentation and clinical experience substantiate these conclusions.

The approved method of combining gelatine with milk is as follows:

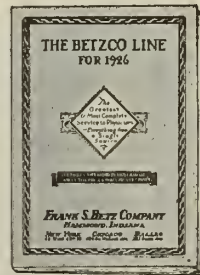
Soak, for ten minutes, one level tablespoonful of pure, unflavored, unsweetened gelatine (Knox) in one-half cup of cold milk taken from the baby's formula; cover while soaking; then place the cup in boiling water, stirring until gelatine is fully dissolved; and add this dissolved gelatine to the quart of cold milk or the regular formula.

It must be remembered that there is a great difference in gelatine. Realizing the importance of absolute purity in any gelatine that is combined in milk or used in any way in the dietary, the laboratories of the Charles B. Knox Gelatine Company maintain a strict and constant control of the production of Knox Sparkling Gelatine. No sweetening, artificial flavor, or coloring, is ever added to this product.

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THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

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Original Articles

THE PURPOSES OF THE ASSOCIATION*

FRANK K. BOLAND, M.D.
Atlanta

Fellow Members of the Medical Association of Georgia, Ladies and Gentlemen:

The purposes of this Association, as set forth in Article II of the Constitution, are six in number: first, to federate and bring into one compact organization the entire medical profession of the State of Georgia; second, to extend medical knowledge and advance medical science; third, to elevate the standard of medical education, and to secure the enactment and enforcement of just medical laws; fourth, to promote friendly intercourse among physicians; fifth, to guard and foster the material interest of its members and to protect them against imposition; and sixth, to enlighten and direct public opinion in regard to the great problems of state and medicine, so that the profession may become more capable and honorable within itself, and more useful to the public, in the prevention and cure of disease, and in prolonging and adding comfort to life.

Let us consider these six purposes, one by one, and see wherein we accomplish them, wherein we fail, and wherein we may increase their usefulness.

1. ORGANIZATION

The first object is to federate and bring into one compact organization the entire

medical profession of the State of Georgia. In this we have made considerable progress, through the efforts of many devoted members in the past, and at this time largely through the zeal of a few councillors, and the efficiency of our secretary, Dr. Allen H. Bunce. However, urgent need still is present for other members to distinguish themselves in extending our activities. Of 2250 eligible physicians in Georgia, 1760 belong to the Association, and of 162 counties in the State, 104 have organized medical societies. The number of eligible doctors living in 25 of the 58 counties which have no societies is so small that it will be many years before organization in them is possible. In the meantime many physicians take advantage of the by-law which allows them to affiliate with societies in adjoining counties.

We believe it is feasible to establish at least 30 more county societies in Georgia. Here is an undertaking for councillors and vice-councillors. If a county society is so small that there is little incentive for preparing serious scientific papers, interest may be aroused by inviting members of neighboring societies to take part. It is rare that a physician or surgeon from one of the larger centers will refuse to accept an invitation to be present at such a gathering.

This leads me to speak of joint sessions between two or more county organizations. Some of the most enjoyable meetings I have attended during the past twelve months were of this character. In this day of better roads such assemblies are easily effected. While the Association has no jurisdiction over district

*President's address read before the Medical Association of Georgia, Albany, Ga., May 13, 1926.

societies, we should lend every encouragement to their success. With the limited number of essays now allowable on the program at the state meeting, district meetings are absolutely necessary in order to permit more members the privilege of presenting scientific papers. I wish to take this occasion to express my appreciation and pleasure in being a guest at many district meetings during the year, and my regret in being compelled to miss several.

An important object attained in the formation of this compact body is the connection with the American Medical Association given us through our delegates, the number of whom has been increased from two to three since we last met. Every year, as the aims of this magnificent organization broaden, the value of this alliance becomes more apparent. The Medical Association of Georgia should give to the A. M. A. every assistance in its power, and should take from it every benefit. To accomplish these results, I suggest for the consideration of the House of Delegates two amendments to the Constitution: first, that one of the delegates to the A. M. A. always be the secretary of the Association; and second, that the delegates be continued in office for a longer period than at present. The work of our delegation always will be handicapped by not having among its number one who is so familiar with the affairs of the state association as the secretary; and if we wish the representatives from Georgia to acquire influence in the national body, they must remain as delegates for more consecutive years.

I would propose another amendment to the Constitution concerning officers: that the president be elected one year prior to taking office. During the year that he is president-elect he will have an opportunity to study the operation of the Association so that his presidential address may be an inaugural message instead of a farewell, as mine is today. With twelve months' administration following his inauguration instead of preceding it, he can put into effect the ideas he has advanced and not have to leave them for the contemplation of his successor in office.

As the Association grows and assumes more objects, the necessity for additional

officers seems manifest. For example, the desirability of selecting a speaker of the House of Delegates, as suggested by Dr. W. E. McCurry, should be given careful thought. In regard to all officers, however, it is proper to insist that no member of the Association be elected to fill any position without due deliberation on the part of those who elect him, and that no member accept an office unless he is reasonably certain he can give to it the time and attention it requires.

2. PROMOTION OF MEDICAL SCIENCE

.....The second purpose of the Association is to extend medical knowledge and advance medical science. Probably the extension of medical knowledge is the part of our purpose to which the most time and labor are devoted. This includes the scientific program of our meetings, writing and reading papers, and reporting cases. Enough papers are written by our members, but not enough members write them. For his own training, if not for the edification of his associates, every doctor in the society should prepare at least one paper every year, and while we wish to keep a sufficient number of articles to fill with credit the pages of our own Journal, we would like to see more articles by Georgia authors appear in the literature outside the state. The time to begin writing medical papers is when one is young. Many men put it off year after year, in spite of rich experience and abundant material. The longer one delays the harder it is to begin. My friends, and especially my young friends, don't let indifference and procrastination and laziness defeat you in this matter. Don't fail to become a regular attendant at the meetings of your society. There are three classes of doctors who are obligated to attend medical meetings: first, those who think they can derive something from the meeting; second, those who think they can add something to the meeting; and third, those who think they can do both. We miss the presence of many valuable members here today. No meeting of the year should mean more to us than the annual session of the Medical Association of Georgia.

What have we done to advance medical science? To answer this question would be to review the history of medicine in Georgia

for the past century. The record is one of which we are proud, but are we maintaining it? One of the county societies offers an annual prize for original research work. The state association should do the same thing, and I think we would all rejoice to see a doctor from the country win the first prize. Remember that McDowell and Long and Sims performed their epochmaking achievements under conditions far less favorable than any that exist in Georgia today.

3. MEDICAL EDUCATION

In the third place, we are to elevate the standard of medical education, and secure the enactment and enforcement of just medical laws. Probably there is not the same need today to elevate the standard of medical education as there was when this purpose was stated, but certainly there is no occasion to lower the standard, as was attempted in the Georgia legislature last summer. The requirements for admission to medical schools are sufficiently high, but never should be made lower. The Association may not have much to say as to how medicine should be taught, or as to what should be taught, except to beg that in the undergraduate years the schools train practitioners of medicine and not specialists. We ask also that more post-graduate courses of instruction be offered in this state for the study of the specialties, so that our members be not compelled to visit New Orleans and other places farther away. And again, the trend of the times demands that more attention be given in medical schools to teaching the pre-eminent subject of public health.

Forever there is a cry from all over the land for more doctors in the rural districts. This appeal will be answered as better roads are built and more community hospitals are established, so that physicians will have facilities for practicing medicine as they were taught to do in school.

In discussing medical education, let me urge you not to neglect to impress your wealthy patients and friends with the good they may do by donating to schools and hospitals. Influenced by a conversation with George Peabody, the London philanthropist, Johns Hopkins, the rich Baltimore merchant, came to believe that there were two things

which were sure to endure—"A university, for there will always be youth to train; and a hospital, for there will always be suffering to relieve." As a consequence the great Johns Hopkins University and Hospital came into being. Our men of means will do these things when we show them the way. Thank God for Asa Candler and his munificence! May he live long to learn more and more that we love him and appreciate his contributions to the cause of medical education.

In regard to the enactment and enforcement of just medical laws, our Committee on Public Policy and Legislation functions satisfactorily. The Secretary of the State Board of Health should always be a member of this committee, and an amendment with this provision should be made to the by-laws. This official is in a position to keep in closest touch with the proceedings of the legislature, and his advice is required constantly by the committee. It is evident that we have outgrown the present Medical Practice Act. The wide-awake chairman of this committee, Dr. J. W. Palmer, is now preparing a new act embodying many timely changes. The Bureau of Legal Medicine and Legislation, of the American Medical Association, is ever alert in influencing proper legislation in congress and among the various states. At the present time the Bureau is rendering indispensable aid in combating pernicious and outrageous amendments to the Harrison Narcotic Law.

4. HARMONY AMONG PHYSICIANS

The fourth purpose declares that we are to promote friendly intercourse among physicians. A colleague pointed out to me the other day the difference between lawyers and doctors in regard to their relations to one another. He said that in open court lawyers will call each other the vilest names imaginable, and after adjournment will walk down the street arm in arm, the best of friends; whereas, doctors will be most polite and deferential to one another in public, and will maliciously discredit one another in private. I trust this is not a situation that obtains in Georgia. If there is any serious lack of harmony among members of the Association it is being kept a dark secret from most of us. The best way to preserve good feeling is to continue to follow the Golden Rule.

5. MEDICAL DEFENSE

Fifth, to guard and foster the material interests of our members and protect them against imposition. The most important work done in this respect is that of our faithful friend, Dr. M. A. Clark, and his Committee on Medical Defense, and their capable attorneys. The annual report of the committee shows that this valuable aim of the Association is being carried out with much satisfaction to the members.

6. PUBLIC HEALTH

The sixth purpose is to enlighten and direct public opinion in regard to the great problems of state and medicine, so that the profession shall become more capable and honorable in itself, and more useful to the public in the prevention and cure of disease, and in prolonging and adding comfort to life. Herein lies a great field for service to the State. Enlightening and directing public opinion means publicity on medical subjects. The complaint is made that the cloak of mystery which has enveloped the practice of medicine has not been entirely removed. If this is true it is not because no effort has been made to teach the people what they should know. The press and the public grasp eagerly for the sensational in medicine, but often are slow to be reached by dry, solemn facts. However, it is our duty to persist in publishing everywhere useful information about health and disease. This is one of the surest methods of subduing quackery. As some of the county societies have publicity committees to furnish unsigned articles for the newspapers, so this Association should do the same thing. Press notices of the present meeting should pass through our own publicity committee. In the meantime, every member of the Medical Association of Georgia always responds cheerfully to a call to give a health talk before any gathering of people. By advising our patients to subscribe for *Hygeia*, the health magazine of the American Medical Association, we will take a big stride forward in combating the evils of charlatans and nostrums.

Becoming more useful to the public implies our earnest support of all measures pertaining to public health. Some members may grow weary of hearing of the Ellis Health

Law, but until this law, or some other one equally as good, is put into active operation in every county in the State, we should not hear the end of it. In order to accomplish the greatest good for public health, some of us must go into politics, and no doctor should be criticized for entering politics on this platform. If we are not in politics ourselves certainly good citizenship demands that we at least vote in every election, and vote for candidates who will help promote the welfare of Georgia by giving it the best possible health laws. Too much praise cannot be bestowed upon Dr. John W. Daniel for his courageous, productive exertions for the propagation of the Ellis health law. No physician can render more unselfish service to his state than by preaching this gospel of preventive medicine.

A profitable lesson learned by Dr. Daniel, and all counties should know it, is that one of the best ways to persuade a grand jury to approve of this law is through the women of the community. Often their presence convinces a stubborn and unsympathetic body of men when masculine argument fails. Nothing can mean more to the prosperity of Georgia, and its restoration to the proud position of the Empire State than the vigorous enforcement of the Ellis health law in every county. To achieve this end means a long, discouraging struggle, but perseverance in such a cause is bound to triumph. The women, through their auxiliaries, are lending telling aid. We thank them from the bottom of our hearts, as we do for all the other splendid work of their organizations. I must pause here to pay loving tribute to the most wonderful woman in the world. Whatever of success, whatever of contentment we may have attained, we owe to her—the doctor's wife.

In considering means of growing more useful to the public, I cannot overlook the importance of our younger men joining the medical reserves of the United States army. War is like disease: most of us avoid thinking of it until it is upon us, then we become fearfully eager to cope with it. If we would prepare for either event earlier, the struggle would not be so severe, and perhaps the outcome would be different. In spite of all the propaganda in favor of peace, history and

sobber judgment tell us that another war at some time is almost as inevitable as disease. Should we not be better prepared for it than we were in 1917? No department of the army is more essential than the medical department, but it will not function effectively unless a sufficient number of civilian medical men begin now to take its training. The state of Georgia is considerably more than fifty per cent behind in completing its quota of medical reserve officers. Let us do our part in protecting the country, which means our own homes and firesides.

At the last meeting of the Association a resolution was adopted instructing the committee on scientific program to secure a physician of national reputation to present at this meeting the subject of the periodic examination of apparently healthy persons. Dr. W. D. Haggard, retiring president of the American Medical Association, was chosen to make this address, and accepted the invitation. Later, he found he could not come, so the resolution of the Association will not be carried out. By all means, such a speaker must be provided for the meeting in 1927. Already we have delayed too long in taking up this vital proposition. Dr. Haggard believes that "it has failed to make headway because a great many doctors have the idea that such examinations are to be made free of charge, as another contribution of our profession to the promotion of public health. Such an impression is absolutely wrong. These annual examinations are to be a legitimate source of income. It is recognized that already the medical profession has curtailed its income by its altruism in stopping all types of contagious diseases. Here is a new avenue in which more will be given as compensation than in any other service we can possibly render an individual in which life is not involved."

CONCLUSION

While we dwell upon these purposes of the Association, as meritorious as they are, let us remember that after all the chief duty of the most of us is to the individual patient who happens to be under our care. It is by our fidelity to him that we will at last be judged.

Nothing can take precedence over this sacred obligation.

May we seek to preserve the dignity of the profession of medicine given it by our forefathers, to avoid all semblance of commercialism, and to rate honor in our work above every other consideration. We refer to medicine as an art and a science. To this I would add another designation: medicine as a comfort. Too often, after our knowledge and skill have failed, comfort is all there is left to give; so let us cultivate the kind and tactful manner, the gentle touch, the sympathetic voice. In striving to master the art and science of medicine, let us not overlook its profound human side. If we cannot bring healing into the sickroom, may we bring confidence and cheer.

For seventy-seven years this Association has served well the profession and the people. Let us count our membership a privilege, and make the most of it. Let us cherish and expand the organization. Let us carry high the torch of professional glory, and consecrate ourselves anew to the purposes of the Association.

THE SELLA TURCICA

Observations made by John D. Camp, Boston (Journal A. M. A., Jan. 16, 1926), based on anatomic specimens and roentgenograms show the normal sella to vary in contour and size. Variations in contour may be classed into three types: the round, oval and flat, of which the oval type predominates in the adult. The average sella will measure 1.06 cm. and .081 cm. in the anteroposterior and vertical directions, respectively. Variations in the shape of the clinoid processes are numerous, and union between the anterior, middle and posterior clinoids, producing a bridged sella occurs in about 5 per cent of cases. Such an anatomic variation seems to be of no clinical significance. Pseudo-defects and apparent anomalies of structure are easily produced in a roentgenogram by faulty localizing technic. Pathologic conditions producing changes in the sella are numerous, and the differentiation of these changes as to cause is often difficult. Owing to the characteristic deformity of the sella usually produced by each, the differentiation between an intrasellar and extrasellar lesion is generally possible.

THE SPECIFIC TREATMENT OF MALARIA*

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In discussing the specific treatment of malaria we should have clearly in mind the results to be accomplished, and the means at our disposal. Whatever clinical symptoms are present, the first and most urgent object is to relieve these symptoms. The next object is to cure the infection so as to prevent relapse and also to prevent transmission of the infection from the given individual to others. In cases of malaria in which no active symptoms are present at the time, the object of treatment is to cure the infection.

Malaria in this country is practically limited to infection with one, or sometimes both of two varieties of parasites—tertian and estivo-autumnal. They vary in their relative prevalence in different parts of the country and in different seasons of the year. However, where one prevails, to any considerable extent, the other is found also.

The symptoms produced by these different varieties differ somewhat in certain particulars but the differences are not so definite as to enable us to recognize the variety of parasite thereby, with any certainty. Such differentiation can be made with certainty only by microscopic examination of the blood.

There is some difference in malaria caused by different varieties of parasites with regard to susceptibility to the effect of specific treatment, but the differences between varieties in this regard are no greater than those found between separate cases caused by the same variety of parasite. In view of these facts, for practical purposes, it is not necessary, nor do I believe it is desirable, to follow different methods of treatment in cases caused by the different varieties of parasites. The treatment should be the same for all.

If we examine the blood of a considerable

number of people living in a locality where malaria is prevalent, we find parasites in the blood of all who, at the time, have active clinical symptoms, such as fever or chills and fever; and in addition, we find them usually in smaller numbers in persons who have no symptoms. Some of such infected persons have had symptoms within the previous few days, weeks, or months, but there are others who have never had recognized symptoms. So far as they have known, they have been well. They may develop clinical attacks later or the infection may disappear without their ever developing clinical symptoms. There are also many instances in which the symptoms cease without adequate treatment or without any treatment whatever and in which the infection entirely and permanently disappears. We have no way of knowing whether, in any given case, with or without clinical symptoms, the disease will continue, get worse, or stop spontaneously. Therefore, all cases should be promptly put on treatment. As long as they are infected, whether symptoms are present or not, they are malaria carriers, and therefore potential sources of infection to others. This constitutes an additional good reason for prompt curative treatment in all cases.

Malaria is one of the few diseases for which we possess a specific. That specific is quinine and, to some extent, certain other cinchona alkaloids. Although it is subject to certain limitations and imperfections, it is effective in all cases if given in sufficient doses for sufficient length of time. There are no cases of malaria that cannot be cured with quinine except, of course, moribund cases and cases in which destructive damage has been done before the patient can be brought under the full influence of quinine. Although other drugs, particularly certain arsenicals, apparently have some effect in some cases and complete recovery often follows their use, not one of them compares with quinine in effectiveness and none are sufficiently effective to be considered specifics. Therefore, the treatment of malaria, at present, means quinine.

We do not know just how quinine kills malaria parasites—whether it is by direct toxic action or by acting in some indirect

*Read before the Medical Association of Georgia, Albany, Ga., May 13, 1926. Invited guest.

way. Strong evidence that it acts as a direct specific poison on the parasite is furnished by the fact that soon following the administration of suitable doses, alterations in the appearance and staining properties of the parasites can be observed. These supposedly sick or poisoned parasites do not grow well or do not grow at all in artificial cultures, similar to those in which other parasites grow well. They seem to be dead or dying.

Quinine not only is a poison or is otherwise destructive to malaria parasites, but it, like most other drugs useful or otherwise, is also toxic for man. However, it is not believed that any permanent harmful effect is produced unless enormous doses are administered. Sufficient doses, if absorbed or put directly into the blood stream, would be destructive of life. Of course the same is true of most other drugs in common use. There is a limit to the amount of any of them that can be used without harm. For this reason, if for no other, the amount of quinine given for malaria should not exceed the amount actually required. It is important therefore to know the minimum amount that can be depended upon to produce the desired result.

If we give to a number of malaria patients who are having active clinical symptoms, 10 grains quinine daily, the symptoms promptly cease in from one to three or four days in a large per cent of the cases. In fact, even 5 grains daily will often stop clinical symptoms. If we give 20 grains daily, the clinical symptoms, especially fever or chills and fever, promptly stop in nearly all cases. Occasionally there is a case in which the clinical symptoms are not promptly controlled. If we give as much as 30 grains daily, the active clinical symptoms are always controlled within a period of from one to three or four days. There are no exceptions, so far as my own experience goes. I have not seen a single case in which fever or chills and fever due to malaria continued more than three days while the patient was taking as much as 30 grains of quinine daily. I have read and heard of many, but all such cases as I have been able to investigate have proven not to be due to malaria. I know there are many

who think they have seen cases of malaria in which fever or chills and fever continued for several days, sometimes as long as two or three weeks in spite of the administration of 30 grains of quinine or more daily. In most, if not all, such cases the diagnosis is erroneous and the symptoms are not due to malaria. If my impression as to the absolute effectiveness of 30 grains of quinine daily is substantiated by the experience of others, then there is never any need to give more than this amount to control the clinical symptoms in any case and there is no need to continue this amount longer than three or four days for this purpose.

This amount of quinine and sometimes much less, produces more or less discomfort in a good many people. Barring extremely rare exceptions, this is not as great as the discomfort produced by the malaria which it is given to cure. Therefore, it is not difficult to choose between them, especially since we have no other remedy to fall back on.

No doubt the effect on the malaria is practically the same, whether the full amount is given in one dose or in several divided doses during the 24 hours, but less discomfort is produced by the latter. A very convenient and practical method is to give 10 grains three times a day.

The time to start the quinine is immediately after the diagnosis is made. Many a malaria patient has died because the administration of quinine was postponed until after some particular symptoms had abated or until a purgative could be given and had acted.

If after the clinical symptoms have been controlled in a group of malaria patients, no further treatment is given, most of them will have attacks again in from a few days to a few weeks. This means that, although usually no parasites can be found in the circulating blood at the end of the treatment, there are parasites still remaining somewhere in the body, which later multiply and produce symptoms. As a matter of fact, there are always more parasites lodged in the capillaries of certain organs and tissues than there are in the circulating blood. Quinine

does not reach them. It is only after they multiply and reappear in the circulating blood that they can be killed. It is therefore necessary to keep sufficient quinine in the blood to kill the parasites as they appear until all have been killed, in order to cure the infection. People who are infected will sometimes develop malarial chills and fever while taking 5 grains quinine daily. Therefore, this amount is not sufficient in all cases to prevent multiplication of parasites and to kill those that appear in the circulating blood. On the other hand, attacks practically never occur while a person is taking as much as 10 grains daily. This amount is sufficient to destroy parasites as they appear in the blood in all cases and, if continued long enough, should and does cure the infection in all cases.

If 10 grains of quinine is given daily to a group of infected persons for a period of one week and then stopped, a large per cent will relapse but a small per cent are cured and remain free from parasites or symptoms. If it is given for two weeks, a larger per cent are cured. If given for four weeks about 60 to 70 per cent are cured of their infection, if given for eight weeks about 90 to 95 per cent are cured. It takes about twelve weeks to cure the infection in 100 per cent of cases. It will be noted, however, that to continue treatment of all long enough to cure the last 5 to 10 per cent, requires a great deal of extra and unnecessary treatment in the case of the 90 to 95 per cent who are already cured by eight weeks of the treatment.

There is no way by which we can know in advance the duration of treatment necessary to cure the infection in any given case. Nor are we able to know when a given case is cured. Therefore, we must choose between the one extreme of curing a very small per cent of cases with a short period of treatment and the other of curing all cases with a very long period. Some advise four weeks, others six and others eight or more. I believe that all cases of malaria should be given eight weeks treatment and that cases that relapse or for other reasons are thought likely to be

difficult to cure should be treated for a longer period of time.

There is no form of quinine more effective against malaria than the ordinary sulphate. There is no mode of administration as effective as oral administration. True, when administered intravenously, quinine reaches the blood stream at once and, in certain urgent cases, it may be a life-saving measure. This mode of administration should be employed only in such cases as it is believed the life of the patient would be endangered by waiting on the absorption of the drug from the alimentary canal.

The method of treatment that I have presented consisting of 10 grains quinine sulphate by mouth three times a day for a period of three or four days to relieve the clinical symptoms, followed by 10 grains daily for a period of eight weeks to cure the infection, is known as "The standard treatment for malaria". It has been advocated for several years by the National Malaria Committee and by many other agencies and persons interested in the control of malaria. It is no doubt already well known to you. No doubt you employ this or other similar effective methods. My chief reason for bringing it again to your attention is to still further emphasize its value.

SPONTANEOUS MENINGEAL HEMORRHAGE

Joseph B. Neal, New York (Journal A. M. A., Jan. 2, 1926), gives data of thirty-five cases of meningeal hemorrhage. Fourteen of these patients died. In four cases the meningeal hemorrhage accompanied an attack of epidemic meningitis; in four cases, a cardiac lesion; in one, pneumonia; in one, syphilis; in one, nephritis, and in one, high blood pressure. In the great majority of cases, however, no cause could be determined. The most important measure in treatment is lumbar puncture. The lumbar puncture should be repeated daily, or less often, depending on the clinical symptoms. In most of Neal's cases it was followed by improvement. In many cases horse serum, in the form of antimeningitis serum, was injected intraspinally early. This may have had a favorable influence on the hemorrhage. Certainly when the bleeding and coagulation time are increased, measures should be taken to correct these conditions of the blood.

ANGINA PECTORIS*

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In any consideration of angina pectoris it is necessary to recognize that the condition is a syndrome of striking symptoms dependent on varied pathological processes rather than a disease entity. Much of the confusion of ideas which prevails would be eliminated if this were more constantly borne in mind. The symptoms comprising the anginous syndrome are so clean cut, so impressive and so formidable that they need only be mentioned. Precordial, or more exactly, substernal oppression rapidly mounting to an intense crushing or tearing pain which radiates to the left shoulder, arm and hand; less commonly to both arms, sometimes to the neck and chin; associated with an overwhelming conviction of impending death. There are many variations in minor details of the distribution of the anguish, in the sequence of the parts involved and in the degree of psychic reaction but the picture as a whole is remarkably constant.

Several types of angina have been described; the classifications being based on the circumstances under which the paroxysm breaks out, the sites of origin and areas of radiation of the pain and coincident or subsequent symptoms of various sorts. The pathological validity of these types is still open to question but from the clinical standpoint they offer a convenient and perhaps valuable means of grouping cases. Regardless of minor variations in symptomatology anginas may be divided into those coming on during physical or emotional stress and those breaking out during sleep. In the words of Vaquez, anginas of effort and anginas of decubitus.

Angina of effort is by far the more common type and is in fact the only variety recognized by the British and German cardiologists. Angina of effort occurs always during physical exertion or extreme sudden emotional outbursts. The degree of effort re-

quired to provoke an attack varies enormously in individuals. Various factors contribute, particularly excitement, cold and a distended stomach. Once begun each attack seems to lower the threshold of cardiac resistance so that more and more trivial efforts precipitate a paroxysm. Angina of effort may kill but seldom are there any manifestations of cardiac dilation, any striking changes in the rate of rhythm of the heart or any signs of pulmonary or splanchnic congestion. The attacks are relatively brief but tend to recur at frequent intervals. Almost invariably the patient finally succumbs to an attack.

Angina of decubitus differs in several important respects from angina of effort. The attacks occur at night, usually after several hours of sleep. There is no gradual development of precordial pain but the patient awakes with the typical agony of a fully developed paroxysm. The seizure is frequently prolonged and ordinary measures do not produce relief. The heart rate is often much increased, frequently there is an extrasystolic arrhythmia. The blood-pressure, which may have been excessively high at the onset, falls rapidly, there is demonstrable cardiac dilation, very often with pulmonary edema. The first attack may kill; on the other hand attacks may recur at more or less frequent intervals. The patient is left prostrated after each attack with persistent soreness over the chest. Complete recovery from angina of decubitus is, however, not infrequent and while the individual paroxysm is more dangerous than in angina of effort the ultimate prognosis is more favorable.

The third type of angina is that produced by coronary obstruction. There is as a rule no history of previous anginous symptoms in these cases. The patient is seized with the most violent precordial anguish, often with extensive radiation of the pain. The picture at first sight is not to be differentiated from that of ordinary angina of effort. The pallor, the awe-stricken attitude of the patient, the held breath with grunting expiration are the same. The pulse, however, is slow, usually between 40 and 50, often there is marked extrasystolic arrhythmia, the blood-pressure is

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low from the start, the heart sound's are feeble and cyanosis soon replaces pallor. Death from acute intractable heart failure usually occurs during the first 24 hours. Rarely the patient may survive for months, a cardiac cripple, only to succumb to acute ventricular dilation in the end.

The etiology of angina pectoris has furnished a battleground for pathologists and clinicians for a century and a quarter. The fact that such masters as Potain, Lauder Brunton, Sir Clifford Allbutt and Sir James McKenzie have held widely divergent opinions, makes it an inescapable conclusion that no one pathological change can explain all cases of angina. The general type of patient who presents angina is fairly constant; male much more frequently than female, almost always over 45, usually presenting evidence of cardiovascular or at least of vascular disease. In addition to these factors, good living with overindulgence in food, drink and tobacco, a sedentary life and mental strain seem to have an important part in the production of the syndrome. Syphilis is, of course, important but only in so far as it produces vascular disease. The incidence of cardiovascular syphilis of the most aggravated type is enormous in our colored population yet we seldom see angina pectoris in a negro patient. Excluding those cases due to sudden coronary occlusion, it seems necessary to hypothesize a definite disturbance of function of the vegetative nervous system, due to or associated with disease of the central vascular system and often activated by unknown functions or dysfunction of the cerebral nervous system.

The pathological changes found in the central vascular system of angina patients are many. The presence of some type of lesion is so constant that we are inclined to feel sceptical of the pathologist's observations when heart and aorta in such cases are reported normal. Degenerative changes in the root of the aorta due to syphilis, bacterial infection or atheroma are the most common findings in angina. In a majority of cases showing these lesions there is associated disease of the coronary vessels. Partial occlusion of the mouths of the coronary arteries

with no marked disease elsewhere in these vessels is not an infrequent occurrence in syphilitic cases. Isolated sclerosis of the coronaries with no gross aortic disease is a much rarer finding. Extensive myocardial degeneration without gross changes in the coronary arteries on the aorta has been described. Extensive infarction of the heart muscle is, of course, present in those cases where coronary occlusion by infarct or thrombus has been a cause of attacks. Some few instances have been reported where no coronary or aortic or myocardial changes have been observed. One is tempted to question the authenticity of the diagnosis or of the pathological observations in these cases.

The explanations of the anginous syndrome are based on the pathological findings plus our meager information regarding cardiac neurology. Whether almost identical pain can be produced by distention of the aorta and coronary arteries, by spasm of these same vessels, by acute dilation of the left ventricle and by ischemia of the heart muscle is something which the physiologists have yet to decide for us. The radiation of the pain in angina corresponds to the distribution of the fibers from the third cervical to the third dorsal segments of the cord. These are the segments which receive afferent impulses from the heart by way of the middle and inferior cardiac nerves, the vagus and perhaps other paths. The pain of angina is then a referred sensation. The nature of the afferent impulse exciting the pain is still unknown. It may be an impulse resulting from constriction of various elements of the central vascular system or from distention of them, by analogy with other hollow viscera, pain may result from violent spasm or from acute overstretching.

The first explanation of anginal pain was based on the hypothesis of cardiac ischemia from spasm or partial obstruction of the coronary arteries. This theory was based on observations of intermittent claudication, where in the presence of marked sclerosis of the arteries of the leg, painful cramps of the muscles occur when functional demands exceed the ability of the inelastic artery to furnish an adequate blood supply. This is

an attractive theory and fits some cases of angina of effort in which extensive coronary narrowing has been demonstrated. McKenzie still adheres to it as the most probable explanation of all angina. A large number of the cases coming to autopsy unfortunately fail to show any demonstrable changes in the coronaries. The theory of angiospasm was advanced to explain such cases and by analogy with peripheral angiospasm is reasonable, but will perhaps remain forever unproved.

The hypothesis that the anginous paroxysm is excited by acute distention of diseased aorta or coronaries or ventricle has at present many supporters. Allbutt in England, Vaquez in France and the Janeways in this country were unwavering in their adherence to this theory. This hypothesis undoubtedly explains angina of effort, angina coincident with crises of hypertension and perhaps the angina of decubitus. It presupposes disease of the aorta or coronaries of sufficient severity to involve the external coats, in which lie the end filaments of the afferent sympathetic fibers. In the presence of such disease whether due to syphilis, bacterial activity or arteriosclerosis, it is believed that sudden distention of the abnormally inelastic vessel produces the afferent impulse in the sympathetic system which is productive of anginal pain.

A recent ingenious theory combines the two preceding ones. From comparative anatomy and embryology the authors of this new hypothesis deduce that the superior cardiac nerve carries vasoconstrictor fibers to the aorta and coronary arteries. Assuming that the first step in the production of angina is overdistention of these vessels in the presence of disease, they think that afferent impulses set up by this distention excite efferent vasoconstrictor impulses and that the painful sensation is the result of cramp-like contraction of the vessels.

From the clinical point of view it would seem that we can accept no one of these theories as all-embracing. The anginas of effort are certainly associated with increased demands on the heart, increased output of blood into the aorta and elevation of blood-

pressure. The anginas of decubitus are associated with hypertension and ventricular dilation.

The physical signs of angina pectoris *per se* cannot be described. We find signs of aortic disease, of cardiac hypertrophy and dilation, of general arteriosclerosis. Hypertension areas of hyperaesthesia, vasomotor instability are present in many cases; but the patient's own description of the attack is our most valuable guide in diagnosis.

Treatment consists first in the relief of the paroxysm, second in the attempt to alleviate or cure what we regard as the cause in the particular case in hand. In angina of effort, the nitrites and morphine offer almost certain relief from the paroxysm. In angina of decubitus, venesection and morphine are the treatment of urgency. In patients with syphilis, prolonged mild antisiphilitic treatment such as we use in any case of cardiovascular syphilis, should be instituted. In the non-syphilitic with arteriosclerosis with or without hypertension, persistent treatment with iodides and minute amounts of bromides should always be tried. Nitrites, particularly sodium nitrite and erythrol tetranitrite, should be given constantly in minute doses. In every case a strict regimen should be carried out. Alcohol, tobacco and coffee must be eliminated. The diet should be simple, poor in protein and salt. The amount of food taken at any one time should be small, to prevent gastric distention. The bowels require careful supervision to avoid gaseous distention and straining at stool. Rest periods after meals should be enforced and mental strain and worry reduced to a minimum.

In angina of decubitus the first step in treatment is recognition of the condition. If angina of effort is the cry of a diseased aorta, angina of decubitus is the cry of a failing myocardium. Nitrites do no good in the angina of decubitus. Treatment is essentially the same as in any case of acute cardiac failure. Rest, fractional feeding, restriction of salt and fluids, repeated courses of digitalis and graduated exercise may restore the heart to such a degree that complete recovery from the paroxysms is secured.

LUNG ABSCESS WITH SPECIAL REFERENCE TO ABSCESS FOLLOWING TONSILLECTOMY*

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The borderlines between several pathogenic processes of the lungs and pleurae such as abscess, gangrene, bronchiectasis, empyema, purulent bronchitis and some of the fungus affections, have become so hazy and indefinable, that recently a term to cover them all has come into vogue; namely, chronic pulmonary suppuration. Lung abscess, while it has distinctive characteristics of its own, may, in the chronic stage, merge into, or become complicated by other of the above named conditions.

The two outstanding causes or precursors of lung abscess are pneumonia and operations under general anesthesia, particularly ether. Of the other causes, I will suffice by only mentioning some of them: trauma, foreign body aspirations, septic emboli, and such infectious diseases as measles, typhoid, scarlet fever, grippe and influenza. Secondary infection of a tuberculous cavity, a very common thing, is not being included in this consideration.

When a lung abscess follows pneumonia, it may be suspected by signs of delayed resolution, persisting septic temperature, leucocytosis, cough and expectoration. It is well to remember, that delayed resolution in pneumonia, in nearly every instance signifies pus in the lung, between the lobes of the lung (inter-lobar empyema), or in the pleural cavity. Formerly pneumonia was the most common cause of lung abscess; but recently the lead has been taken by operations performed under general anesthesia. Of such operations, those about the upper air passages, and notably tonsillectomy, have been the chief offenders. Of all the cases of lung abscess, roughly 20-30% follow tonsillectomy. The first lung abscess following tonsillectomy was reported in 1912, by Richardson. The incidence of this unfortunate complication varies in the different clinics.

Sluder reports 20,000 tonsillectomies done by himself and staff, using nitrous oxide anesthesia without a single lung abscess. Of several reported series of lung abscesses following tonsillectomy, the vast majority, over 85%, occurred where general anesthesia, and usually ether, was administered. Recently the Mayo Clinic reported over 20,000 tonsillectomies under local anesthesia without the occurrence of a single lung abscess.

Because of the anatomical position of the large primary bronchi, abscess occurs twice as frequently in the right lung as in the left. Among all cases, abscess is more common in the lower lobes; but no lobe is exempt. In aspiration cases following operation, the upper lobes are the more frequent site, and this is explained by the fact that the act of coughing forces the infected material upwards.

There are two prevalent views as to the causative mechanism in the production of lung abscess following tonsillectomy. One, that it is due to aspiration of infected blood or mucus; the other, that it is due to septic emboli from the field of operation. Unquestionably both are responsible at times; but the consensus of present day thought is that in the vast majority of instances it is due to aspiration. Meyerson performed direct laryngoscopy in a hundred cases after tonsillectomy and after all bleeding had been controlled. In 79 of them, blood was found in the trachea or bronchi. In several cases of abscess of the lung, following teeth extraction, a tooth has subsequently been recovered from the abscess. Lung abscess may be single or multiple. Embolic abscesses are usually multiple. Abscesses following tonsillectomy are usually single.

The signs and symptoms of a lung abscess may come on three or four days after tonsillectomy; but more often twelve to fourteen days. Whenever respiratory symptoms follow tonsillectomy under general anesthesia, suspect lung abscess. The symptoms, physical findings and X-ray may be identical with those of a broncho-pneumonia. Cough with purulent expectoration occurring during the course of a septicemia or endocarditis suggests an embolic lung abscess.

*Read before the Troup County Medical Society, March 26, 1925.

The main diagnostic points in acute abscess of the lung are: sudden onset with cough and foul purulent sputum; physical signs in lung, usually of consolidation or cavity; septic temperature curve; chills; sweats; progressive anemia; a suggestive, and oft-times characteristic, X-ray film; elastic tissue in sputum (one-third to one-half of all cases), and in some protracted cases, clubbing of the fingers (extreme cases toes and tip of nose). Tubercle bacilli should always be carefully searched for; but where there is much pathology in the lungs, with many physical signs and copious expectoration, a negative sputum for tubercle bacilli practically rules out pulmonary tuberculosis. The X-ray picture in lung abscess is frequently quite characteristic, showing a homogeneous density, occupying a portion of one lobe, shading off into fairly good lung tissue. It is usually better seen tangentially than in the anterior-posterior diameter. There is often seen a cavity surrounded by consolidation, and with the fluoroscope a fluid level not infrequently can be demonstrated.

The physical signs are extremely variable, depending on the size, number and position of the abscess; the condition of the surrounding lung; the contents of the abscess cavity, whether filled with secretion or whether empty, and upon the amount of pleural involvement. These signs vary enormously in different cases, and in the same case at different times. Rales may or may not be present, and when present, usually are few in number and moist in character.

The chief symptoms are cough with the expectoration of large quantities of foul smelling purulent sputum; foul breath; occasional pleural pain; rigors; sweats; fever; anorexia; weakness and in some cases dyspnoea; blood tinged sputum frequently occurs and large hemorrhages are not uncommon.

A diagnostic lung puncture may be made; using a long, small bore needle attached to a syringe. Care and skill should be exercised in order not to infect the pleural cavity by tracking infected material across it. Radio-graphic orientation should precede this puncture, so as to spare the patient several punctures before pus is obtained. In all

suspected foreign body cases bronchoscopy is indicated.

The treatment of lung abscess I would divide into four main divisions, all of which have their field of application in the different type of cases, and in many instances are combined in the proper handling of the same case. These are: expectant medical treatment; bronchoscopy; lung collapse by artificial pneumo-thorax and surgery. The scope of this paper does not permit a detailed discussion of these several methods, so I must content with only a few remarks. The expectant treatment consists of bed rest, fresh air, sunlight, good food, tonics, postural drainage, medicated inhalations, vaccines, drugs for symptomatic relief, et cetera. In quite a few cases such treatment will lead to a spontaneous cure of an acute abscess; and in my opinion should always precede surgical intervention.

The bronchoscopic treatment has many advocates over the country; notably Drs. Meyer and Lillienthal in New York, and the workers in Dr. Chevalier Jackson's clinic in Philadelphia. There are others who tend to condemn it as being too severe an ordeal in an acutely ill patient with a lung abscess. Certainly it is true that in the hands of other than an expert, the procedure is hazardous. As before intimated, in every case of foreign body abscess, bronchoscopy is the method of choice, if not imperative. In any event, the bronchoscopist should work hand in hand with the internist and radiologist and in some cases the chest surgeon.

Collapse of the diseased lung by means of artificial pneumothorax has proved to be a most valuable method in certain type of cases; and I feel that in centrally located abscesses, communicating with a bronchus and with the pleural cavity relatively free of adhesions that it is the method par excellence. Occasionally a large hemorrhage will require this procedure. A peripherally located abscess and the presence of pleural adhesions contra-indicate it. Recently many cures have been reported where this method was employed early, and in the proper type of case. The writer has achieved such a result in two cases.

The surgical treatment consists in one of the following: simple incision and drainage; cauterization and drainage; lobectomy; graded thorocoplasty, and quite recently lobectomy by means of the live cautery as described by Graham of St. Louis. Most of all these methods have been attended with high mortality, and only too often a state of chronic invalidism is produced. Except in the larger clinics, incision and drainage has been the most commonly employed method. A preliminary artificial pneumo-thorax is desirable to this step, as in this way the site of adhesions is easily demonstrated, and it is at this point that the thorocotomy should be performed. Several months ago, I treated a patient who had a lung abscess in the left lower lobe, peripherally situated and following tonsillectomy under local anesthesia, with intravenous injections of mercurochrome. She made a complete, and to date, a permanent recovery. I offer this for what it may be worth, as I would not go on record as saying mercurochrome is a cure for lung abscess, since one case proves very little. To my knowledge there is no similar report in the literature.

The prognosis in lung abscess should be guarded, for it is indeed a most grave affection and carries with it a mortality of 40-50%. A spontaneous cure may occur, a total or partial cure may be effected by some of the methods of treatment described, and when partial, a chronic state of invalidism may supervene. Finally, death may occur as a result of: exhaustion and toxemia, metastatic abscess, septicemia, empyema, cerebral metastasis and operation. It has been my observation that not infrequently in the chronic type of case there is a superimposed invasion by the tubercle bacillus.

In conclusion: The intelligent management of such a serious disease as lung abscess, demands the close cooperation of the several specialties. As a prophylactic measure; in performing tonsillectomy, local anesthesia, gentle handling of the tissues, proper care of bleeding, and withholding operation in the presence of acute inflammation would appear to be the method of choice.

SOME OBSERVATIONS ON THE OCCURRENCE OF GLAUCOMA*

WM. H. CABANISS, M.D.
Athens

I realize that but few members of our Society are interested in diseases of the eye but the vast majority of the persons living in the Eighth Congressional District—your patients—will first consult you when in physical trouble regardless of whether the pain is in the eye or the abdomen. Consequently, I believe an occasional paper of this character will not be entirely out of place.

I know of no disease in which a correct diagnosis is more important or conversely, in which incorrect treatment produces equal disaster. Even one drop of atropine may produce a flare up in a case of quiescent glaucoma and a persistence in its use will inevitably destroy the eye.

Glaucoma is a disease characterized by increased tension of the globe and impairment of the vision. This impairment may be gradual or sudden and may vary in degree from a slight diminution of vision to total blindness. Broadly speaking, the term glaucoma is applied to all those conditions in which the intraocular tension is abnormally increased.

The term glaucoma is of great antiquity but the ancient writers did not know its early stages nor did they recognize it as a distinct disease and, from the time of Hippocrates to the early part of the 18th century, it included cataract as well as other states.

Hippocrates used the term "glaucosis" and it is thought that he was then referring to a cataractous condition. The Greco-Roman writers described a condition of blindness in which the pupil was light blue or sea green and they supposed the change due to the flowing down of an inspissated humor into an imaginary space between the pupil and the lens.

The next important clarification of ideas occurred when Rolfinch in 1656 and, later, Brisseau and Maitre Jan pointed out that

*Read before the Eighth District Medical Society, Athens, Ga., August 12, 1925.

cataract is essentially a clouding of the crystalline lens. However, no one had advanced the fact that glaucoma is a condition of increased tension until Muller and Von Graefe did so.

Brisseau demonstrated by his post mortem examinations that glaucoma is not due to an affection of the lens but was, in his opinion, a disease of turbidity of the vitreous humor.

Terson, in an account of his researches concerning the earliest mention of hardness of the eye in glaucoma, states that J. Platner, in a work published in 1745 in which he ascribed certain cases of glaucoma to an affection of the crystalline lens, gave evidence of his knowledge of the hardness of the globe to finger pressure.

More careful discrimination was shown in the succeeding years of that century, so that by 1821, Demours, referred to the increase of tension and associated glaucoma with over-sensitiveness of the nervous system but ascribed the disease to rheumatism and gout. Yet it was not until 1830 that Mackenzie observed that hardness of the globe and an increase of the contents of the eye were accompaniments of the condition of what was by this time denominated glaucoma.

In the succeeding twenty years, many hypotheses were advanced as to the cause. Many believed it due to disease of the retina or optic nerve, while others, among whom was Mackenzie, ascribed it to be an affection of the choroid. Nothing had been devised to relieve the symptoms and the prognosis remained unfavorable.

Moreover it was not until the invention of the ophthalmoscope that it became possible to recognize the non-inflammatory types and to study the morbid changes in the fundus.

In 1854 Mackenzie advised that "paracentesis of the cornea, or of the sclerotic, affords great relief of pain." Van Graefe had noticed in his studies of other conditions that iridectomy usually caused a permanent lowering of the tension and he advised that this be done in glaucoma. This was an epoch in the treatment of glaucoma and remains today as the most promising

method for the relief of increased tension.

In 1856 Muller demonstrated anatomically the pressure excavation of the optic nerve and, a year or so later, Weber and Forster accurately diagnosed it with the aid of the ophthalmoscope.

There were numerous theories advanced regarding the causative factors of glaucoma. Donders believed inflammatory glaucoma to be caused by an irritation of the secretory nerves of the eye while others thought the increased tension due indirectly to trigeminal neuralgia. Still others regarded it as an effect of angioneurosis.

In the last quarter of the nineteenth century this condition was studied with infinite care and the atmosphere became clearer as histologic methods were improved and especially through the careful study of eyes removed because of secondary glaucoma.

Leber believed that the cause lay in an obstruction of the angle of the anterior chamber. His researches were amply corroborated by Knies and Weber and their conclusions are universally accepted.

Priestly Smith, confining his studies to the changes observed in the crystalline lens during life, in 1879 advanced the theory that primary glaucoma is caused by an increase in the size of the lens or rather in a disproportion between the lens and the eye.

Glaucoma may be divided into two varieties, primary and secondary. Primary or idiopathic glaucoma is, as the term implies, that form which comes on apparently without any pre-existing disease of the eye. The secondary type is merely a complication or sequella of some disease of the Uveal tract.

Primary glaucoma is a common disease of the eye, constituting about 1% of all cases of eye disease. It may be further divided into the inflammatory and the non-inflammatory types. Inflammatory glaucoma may be either acute or chronic with the intermediate stage of subacuteness.

The non-congestive form is chronic and is termed "simple glaucoma". Division of glaucoma in the varieties mentioned is purely for convenience as one kind of glaucoma may at any time pass into another class. A case of simple glaucoma may be

quiet for years and then suddenly become acutely congestive. All the types are essentially alike, the difference being caused by the rate of obstruction in the filtration angle.

It is common for both eyes to be affected but there is usually some difference in the condition of the two eyes and, in simple glaucoma, one eye may show marked increase in tension with the other apparently normal for years. However, a careful examination in such cases will show that the eye which seems normal to the patient will show some signs of pathology.

The tension of an eye may be roughly estimated by touch but the tonometer should always be used to definitely decide the exact condition.

In the acute condition there is usually some cloudiness of the cornea with a variable congestion most marked in the ciliary region.

There is usually a decreased depth of the anterior chamber due to a pushing forward of the lens and peripheral portion of the iris. Ordinarily the pupil is dilated and, frequently, it is oval rather than round. The iris is either sluggish in reaction or, perhaps, totally inactive; yet, in some instances, abnormal pupillary signs may be entirely absent. The dilation of the pupil depends upon a paresis of the ciliary nerves, together with a lowering of the blood supply of the iris.

Excavation of the disk is commonly seen. The depth depends upon the duration of the disease and the intraocular pressure. It is to be differentiated from that seen in optic atrophy and physiological cupping. The excavation in glaucoma is usually complete with sharp edges and ordinarily is deeper than that seen in optic atrophy. In the latter the nerve head is pearly white while the glaucomatous disc is more nearly normal in color and even greenish at times. Physiological cupping is usually incomplete and normal in color. Each diopter of refraction corresponds to 0.3 mm. of depth.

Changes in the intraocular vessels. They are at first clear with well defined borders, later the arteries become somewhat constricted. At a subsequent period of the dis-

ease all vessels of the papilla become hazy and indistinct and the retinal vessels appear to spring from the margin of the disk. Often in glaucoma an arterial pulsation is seen. This may be artificially produced by pressure on the eye.

The sensitiveness of the cornea is usually affected and this may extend to an anaesthesia of the cornea in the later stages of the disease or during an attack.

In the congestive cases there is frequently an almost unbearable pain with nausea and vomiting. If the attack is less severe, the pain may simulate that of neuralgia with which it is frequently confused. This is a point worth remembering, as permanent damage may be done to the vision if the physician is satisfied by relieving the pain with opiates.

Visual Changes—

- (1) In acute glaucoma there is a sudden loss in visual acuteness. It is not safe to depend upon the degree of visual acuity as a guide to the rate of progress of chronic glaucoma.
- (2) Affection of the accommodation.
- (3) Alterations in the peripheral vision, most important. The tendency is toward a progressive contraction.

The nasal field is usually the first portion to be contracted in glaucoma. Bjerrum has shown that careful examination will usually show a defect in the region of the blind spot. So constant is this that the phenomenon is known as "Bjerrum's symptom". A careful examination should be made for scotomata.

Few subjects in ophthalmology are more important and none more obscure than that connected with the cause of primary glaucoma.

Predisposing causes—

- (1) "Spare habit."
- (2) Hereditary.
- (3) Age—Usually occurs after forty years of age.
- (4) Sex—More common in women.
- (5) Size of eye—Normal cornea is 11.6 mm. Those 10 or less rarely escape.
- (6) Exciting causes. Sleeplessness and worry often seem to bring on attacks of glaucoma.

- (7) Vascular change. Often seen in high blood pressure and those with arteriosclerosis.
- (8) Over use of eyes.
- (9) Improper use of drugs—Mydriatics, etc.

I shall make no attempt to go into the treatment in detail. In brief, it may be divided into the operative and non-operative. That no operation is regarded as being definitely certain of permanent cure or relief is attested to by the number and variety of the operations. The object in every case is to give permanent drainage. I believe that a wide iridectomy after the method of Reese is, to date, the most promising.

The medical treatment is that of the use of myotica, of which we have only two—pilocarpine and eserine. The former is less irritating and is usually used in a one per cent solution.

In conclusion, I would like to reiterate that glaucoma is a common ocular disease which if not checked will inevitably lead to blindness. It must always be differentiated from iritis in which the treatment is the direct antithesis to that of glaucoma. A confusion of the two will always result in disaster with possibly irreparable injury to the affected eye.

PULMONARY IMMUNIZATION

Certain tests made by W. H. Manwaring, Francis I. O'Neill, Kenneth W. Thompson and Leonard G. Dobson, Stanford University, Calif. (Journal A. M. A., Nov. 28, 1925), with actively and passively immunized lungs, give a conception of immunologic adaptations of fixed tissues not in accord with current views. They indicate the removal or the masking of the preliminary fixed tissue hypersensitiveness, the development of fixed tissue resistance that in themselves would fully account for immunity, unassisted by circulating antibodies. As the lungs of passively and of actively immunized dogs are apparently identical in these tests, the tests give no evidence that any tissue represented in the lungs acquires properties during active immunization that cannot be accounted for by the local absorption or fixation of circulating antibodies. The experiments, therefore, give no support to the current hypothesis that the main or sole site of antibody formation is in the reticulo-endothelial system. They do not, however, rule out the possibility of antibody formation by this system.

HEREDITARY ANKYLOSIS OF PROXIMAL PHALANGEAL JOINTS

The family record in the case city by C. D. Elkin, Atlanta, Ga. (Journal A. M. A., Feb. 14, 1925), has been traced through five generations; but, owing to migration of individual members to many parts of the country, and the fact that no genealogical table has been kept, the record is exceedingly meager. It is known by the patient that the trait has been carried through five generations; the first and second by male, the third and fourth by female ancestors. Men and women are equally affected, and both transmit the trait. In the author's case the proximal phalanges of the middle, ring and little fingers of both hands are ankylosed. The index fingers and thumbs are normal. The subject, a man, aged 25, has not been incapacitated in carrying out his work as a manual laborer. Except for some enlargement of the bones, there is no evidence of a proximal joint in the middle, ring and little finger of either hand.

PRESENT STATUS OF THE PHENOLTETRA-CHLOROPHTHALEIN LIVER FUNCTION TEST

Observation made by Siegfried Maurer and L. C. Gatewood, Chicago (Journal A. M. A., March 28, 1925), indicate that the dye is removed from the blood stream as other colloidal dyes, and is not removed from the blood stream originally by the liver alone. It is shown that the rate of removal from the blood stream of the colloidal substance used for liver function tests is influenced to some extent by varying degrees of immunization. The rate of disappearance from the blood stream, while showing certain definite changes in cases of advanced liver disease, is apparently not a true index of impairment of liver cell function. Determination of the dye in the duodenal content is, in the light of our present evidence, a more logical index of liver function. The injection of substances of this group is not without danger. There is here offered a new method of determination of the dye in the blood by which it is possible to establish more completely the curve of the disappearance of the dye from the blood stream. The ideal dye for a liver function test must be nontoxic; it must be a crystalloid; its primary removal from the blood stream must be solely by the liver; it must remain in the blood a sufficient length of time for determination to be made, and its ultimate removal from the organism must be solely by the liver parenchyma cells.

CANCER MAY RECUR WITHIN THREE YEARS AFTER SURGERY

Cancer may recur any time within three years after removal of the growth. Therefore the patient should be examined by the physician regularly for the first three years.

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Profession of Georgia.

65 Forrest Ave., Atlanta, Ga.

JUNE, 1926

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Articles are accepted for publication on condition that they are contributed solely to this Journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Reprints should be ordered within 30 days after the appearance of an article, since all type will be destroyed at the end of that time.

Editorial Department

THE ALBANY MEETING

The seventy-seventh annual session of the Medical Association of Georgia was held in Albany, May 11th to 14th. There were 393 members registered, twenty-five per cent of our entire membership, being the largest number of visiting physicians ever to attend one of our state meetings. This is a remarkable showing both for the Association and Albany and compares most favorably with recently published figures from the New York State Society where only ten per cent of the members attend the annual session and the Massachusetts society which thought it would do well to equal New York's attendance of ten per cent.

The papers on the scientific program showed unusual thought and care in their preparation. The discussions were full and general and added much to the interest of the meeting. We were particularly honored by the presence of two distinguished Southern physicians as our guests: Dr. Seale Harris of Birmingham, and Dr. C. C. Bass of

New Orleans. We are greatly indebted to them for their contribution to the success of the occasion.

Our President, Dr. Frank K. Boland, conducted both the business and scientific meetings in a most masterful manner. His presidential address is the leading article in this issue of the Journal and should be read and studied by every member of the Association. Dr. Boland's services to the Association and to Georgia during his very useful career and especially during his Presidency form one of the brightest chapters in our history. May we all strive to emulate his worthy example!

The annual election was held Friday at noon and resulted as follows:

President: Dr. V. O. Harvard, Arabi.

First Vice-President: Dr. J. A. Redfearn, Albany.

Second Vice-President: Dr. B. H. Minchew, Waycross.

Delegates to the A. M. A.: Dr. E. C. Thrash, Atlanta, and Dr. C. W. Roberts, Atlanta.

Alternate Delegates: Dr. J. W. Palmer, Ailey, and Dr. B. T. Wise, Plains.

Councillors:

Ninth District: Dr. C. L. Ayers, Toccoa.

Tenth District: Dr. S. J. Lewis, Augusta.

Eleventh District: Dr. A. S. M. Coleman, Douglas.

Twelfth District: Dr. T. C. Thompson, Vidalia.

Athens was selected as the meeting place for the next annual session.

VITAL STATISTICS

Every civilized country except the United States has an adequate system of registration of Vital Statistics. Only countries like Turkey and China neglect it.

The primary purpose aimed at is the conservation of life and health in the public interest. Only by ascertaining the facts can steps be taken to arrest epidemics to enforce sanitation or check violence.

The State Board of Health and the Bureau of Vital Statistics are in the hands of the Medical Profession, who are the recognized guardians of the health and physical welfare of the people of the State.

The Annual Collection of Mortality Statis-

ties for that part of the United States known as the Registration area began with the calendar year 1900.

The result of this registration may be seen in the diseases like Typhoid and Malaria, which are directly open to attack by Public Health action. The following are the death rates per 100,000 population in the Registration area from Typhoid:

Year	Rate
1900	35.9
1910	23.5
1915	12.4
1920	7.8
1923	6.8

The figures for the State of Georgia which entered the Registration area in 1922, are as follows:

Year	White	Colored	Total
1922	18.0	31.4	23.5
1923	14.0	30.0	20.5

against an average of 6.8 for the whole area of the deaths, 80 per cent occur in the rural districts. Georgia is therefore about 15 years behind the rest of the country in Typhoid control.

MALARIA

If we take Malaria the case is even worse. The figures for the Registration area are:

Year	Rate
1900	7.9
1910	2.2
1915	2.3
1920	3.6
1923	2.8

The figures for Georgia are:

Year	White	Colored	Total
1922	12.5	23.2	16.9
1923	11.5	21.8	15.7

against an average of 2.8 for the whole area. Again it will be seen how far Georgia falls behind in the control of Malaria.

92 per cent of the deaths from Malaria occur in the rural districts.

We may look at these figures coldly and calculate what the community loses in hard cash from deaths from such preventable diseases. There is the loss of earning power during sickness, and from premature end of life. To that have to be added cost of nursing and medicines, doctors' and undertakers'

ills, etc. This amounts to a formidable sum.

But not less important from the public welfare point of view are the physical suffering, the anxiety and grief, the loss of morale, the woes of widows and orphans thrust out untimely to struggle for a precarious livelihood.

That it is the duty of the State to grapple earnestly with such conditions is beyond debate. To urge that the feelings of some individuals may be hurt is beside the point. We are not individuals. We are part of a community. If my neighbor has typhoid or his children have measles, it is my business to know, and it is my duty to see that the disease is not spread, to my own family or any one else's. Hence the need for Registration and the Public Health Service.

The co-operation of the Medical Profession is expected, not as a matter of business but as a duty. The State has granted the Members of the Profession certain privileges. On the discharge of their professional duties they have a strict monopoly. No one else can perform their functions. In return the State has the right to call for their services when necessary within the limits of their functions. In every other civilized country this is recognized and these services are willingly rendered to the State without objections.

Turning aside from the health aspect it is represented that registration of births and deaths is a hardship on the individual. On the contrary it is favor conferred on him by the State.

Take the matter of citizenship. It is rightly considered that the privileges of citizenship in this country are of great value. But it is founded on birth within the States. How is such birth proved, if not by registration? One wishes to go abroad and applies for a passport. The first and essential question asked is: Where were you born and when?

Disputes constantly arise over parentage, in the division of property—who were your parents, your grandparents? Questions easily answered in the presence of birth registers, difficult or impossible of answer in their absence. With the great growth in wealth and population in the South such matters have already become of very great importance.

One cannot purchase a life annuity without proof of age. The Federal Government requires a certified copy of a birth or death record when such is made the basis of any claim for pension, bonus or other Federal aid. Every year which passes emphasizes the need for records of Vital Statistics.

In matters of life and death it is the duty of the State to see that secrecy shall not be practiced. For instance: that burials shall not take place without public record of the fact and cause of the death being made. This is so obvious that the motives of any one questioning it at once invite suspicion—who wishes to cover up facts and obscure truth in such matters? Certainly no reputable physician.

THE ANNAUL BANQUET

The annual banquet of the Association was held in the Hotel Gordon, Albany, on the second evening of the seventy-seventh annual session with Dr. M. A. Clark of Macon, Past President and Parliamentarian, wielding the gavel as toastmaster. Two hundred sixty-six Georgia doctors partook of what was unanimously declared to be one of the finest banquets ever served the members of the Association.

So far as entertainments were concerned this banquet was one of the outstanding features of the convention and served in one of the most progressive cities of the state and by the most royal hosts.

A wholly unexpected surprise to the recipient on this occasion was the presentation of a silver pitcher with gold lined goblets to Dr. M. A. Clark, given him for his faithful service and devotion to the Association.

Dr. J. W. Palmer, of Ailey, on behalf of the Association presented Dr. Frank K. Boland, immediate Past President, with the Badge of Service for his labors through the past year. A unique feature of this presentation was that five years ago Dr. Boland presented Dr. Palmer with a like Badge of Service. Dr. Palmer spoke of the great pleasure it gave him to return the compliment paid him by Dr. Boland at that time.

We are publishing in this issue abstracts of speeches made at the banquet with the

exception of that made by Dr. M. A. Clark. Although it was the unanimous verdict of all present that Dr. Clark made a most brilliant and masterful address, he in his great modesty, "Had not thought of its being worth a place in the Journal". We sincerely hope that he will write it for us so that it may be published in a later issue.

PRESENTATION OF GIFT TO DR. M. A. CLARK BY DR. W. A. DANCY, SAVANNAH

Mr. Chairman, Mr. President, and Members of the Medical Association of Georgia:

Your Chairman has requested that I address you, on loyalty to the Medical Association of Georgia. This splendid quality is better illustrated by example than explained by a mass of words. If you will give me your attention for a few moments, I shall show you a living example of this splendid principle.

As you study the men active in the great work of this organization, you will perceive examples of unselfishness in work and devotion to duty, which has never been surpassed. Among the many splendid physicians in our organizations to which this may apply there is one whose fidelity to principle, loyalty to service, and devotion to duty have placed him on a pedestal above all others. For his sincerity as a friend, for his exemplary life as a citizen, for his sterling traits as a physician and for his excellent work as a member of this Association, we all love him. This Association owes him a debt of deep gratitude for all the efforts he has expended in its behalf and the great work he has accomplished in his past and present offices.

Appreciating the real worth of the man, the friend, the citizen, the physician, the membership of this Association wishes to take this opportunity to express in a small way, its love, its affection, and its esteem for our much beloved parliamentarian.

They have asked me, sir, to present to you this beautiful gift. Accept it with the love of every member of the Medical Association of Georgia.

On this beautiful silver pitcher is to be found engraved—so that neither time nor

the elements can erase—the following inscription:

To
Dr. M. A. Clark
Ex-President, Parliamentarian.
By
The Medical Association of Georgia
with
Love, Affection, Esteem
May 13, 1926.

Dr. Clark, on these quiet evenings when the day's toil is o'er, and you sit silent and alone in your library, reflecting on the things that are and those which have been, pour from this handsome pitcher of our love, into those gold lined goblets of our affection, drink and know that as your heart beats at the silent toast, so do those of your fellow physicians of the Medical Association of Georgia, beat in responsive love and affection.

DR. J. W. PALMER'S ADDRESS IN DELIVERING THE BADGE OF SERVICE TO THE PRESIDENT,
DR. FRANK K. BOLAND

Mr. Chairman and Gentlemen:

It affords me a peculiar pleasure to present to our President this Badge of Service, because at Columbus, Ga., four years ago he presented to me my Badge of Service. In performing this pleasant duty I have only a few simple statements of facts and truths to make which come from the very depth of my heart. Dr. Boland, it has been my good fortune in life to be thrown with you, so that I could know you well and study you closely. I want to say that you have made and caused to be written more medical history in Georgia than any other man who has ever been President. We are proud of your spotless war record which is an open book to everybody and reflects great honor upon the medical profession of our state. Your Presidential Address was the most constructive we ever had. I hope to live to see your suggestions put into operation.

Had it not been for your everlasting efforts, untiring energy and great sacrifices, the statue of our illustrious son, Dr. Crawford

W. Long, would never have been completed. Your dignity, your personality, your eloquence and executive ability in presiding over and conducting the exercises and ceremonies at the unveiling of the Crawford W. Long Statue in the Statuary Hall of Fame in the Capitol at Washington, D. C., March 30, 1926, not only did justice to yourself and reflected great honor and credit upon the medical profession of Georgia, but upon the of the greatest men in the United States with I looked out into the audience and saw some of the greatest men in the United States witnessing these ceremonies, I was glad you were President of the Medical Association of Georgia, and the only regret I have is that the things which transpired there are not written into history so that those who were not there and those who will come after us could have read and known of this great event.

Dr. Boland, I have never heard you say one harm word about any man, neither have I ever heard a living human being say one harm word about you, much less criticize you. I have never heard you say one ugly word, much less swear or use any profanity. I have never known of you being intoxicated nor have I ever known of you dissipating in any way, shape, form or fashion, and above all I have found you to be a Christian gentleman. Your life has demonstrated to us that your God comes first and your profession next. You have shown to us that no man is wise who has not settled his soul's future and placed his trust in God. You have taught us that too much cannot be said of the Christian physician who can and does help the soul while he is seeking to cure the body. You have taught us that one profits most who has served best. You are a model man, a model surgeon and a model president; your life will be an inspiration to those who will come after us to model their lives after yours. In presenting this Badge of Service to you I want to say there are other honors in store for you besides the one I am now about to bestow upon you. In the name of the Medical Association of Georgia I present to you this Badge of Service.

ACCEPTANCE OF BADGE OF SERVICE

BY DR. FRANK K. BOLAND,
PRESIDENT

Dr. Palmer and Gentlemen of the Association:

I am so overcome by Dr. Palmer's remarks that I cannot find my tongue. You know that I must appreciate all the kind things he has said. How little I feel that they are deserved. While he was speaking there were two things which came uppermost in my mind; one was how grateful I am to the Association for the honor which it has conferred upon me and the second is, how I

hope to make as good an ex-president as Dr. Palmer, himself, has made, and Dr. Clark and Dr. Thrash and a few others. I feel tonight like a young graduate just receiving his diploma, and feel that I must just now begin my work for the Association, instead of ending it. Certainly, it is not time for a man to quit when he has completed the highest office in the gift of the Association. I promise to give my best efforts to the work of this body as long as I live. Thank you very, very much for this evidence of your confidence and esteem.

MEMBERS REGISTERING AT ANNUAL MEETING HELD IN ALBANY,
May 12, 13, 14, 1926

A

Abercrombie, T. F., Atlanta
Adkins, W. N., Atlanta
Alexander, Geo. L., Forsyth
Alford, A. E. B., Bainbridge
Allen, H. D., Milledgeville
Allen, L. C., Hoschton
Almand, C. B., Winder
Anderson, E. B., Americus
Anderson, J. M., Barnesville
Anderson, J. M., Columbus
Applewhite, J. D., Athens
Arnold, J. T., Parrott
Askew, P. H., Nashville
Aven, C. C., Atlanta
Ayers, C. L., Toccoa

B

Bacon, A. S., Albany
Baggett, L. C., Atlanta
Bagley, Geo. W., DeSoto
Baker, W. Pope, Atlanta
Barfield, J. R., Atlanta
Barge, A. A., Newman
Barksdale, C. B., Blakely
Barnett, J. M., Albany
Barrow, Craig, Savannah
Bashinski, Benj., Macon
Bazemore, Wallace, Macon
Beard, J. S., Edison
Belcher, D. P., Pelham
Belflower, H. M., Sycamore
Bennett, W. L., Moultrie
Benson, Marion T., Atlanta
Benson, N. E., Albany
Bevans, James L., Thomasville
Binion, W. W., Benevolence
Black, A. H., Thomaston
Blackman, W. W., Atlanta
Block, E. Bates, Atlanta
Boland, Frank K., Atlanta
Boland, S. A., Thomson
Bowdoin, Joe P., Adairsville
Bradley, T. E., Cordele
Brannen, C. C., Moultrie
Brawner, Jas. N., Atlanta
Bridges, B. L., Morgan
Bridges, R. R., Leary
Brown, J. L., Camilla
Bullard, T. P., Palmetto

Bunce, Allen H., Atlanta
Burtz, C. W., Acworth

C

Calhoun, W. W., Arlington
Callaway, Enoch, LaGrange
Camp, R. T., Fairburn
Camp, W. R., Fairburn
Campbell, J. L., Atlanta
Carey, Bernard W., Athens
Carswell, H. J., Waycross
Carter, H. G., Atlanta
Carter, R. L., Thomaston
Chambliss, J. W., Americus
Champion, W. L., Atlanta
Chaney, R. H., Augusta
Chappell, Guy, Dawson
Chaudron, P. O., Cedartown
Cheek, O. H., Dublin
Chestnutt, T. H., Coolidge
Cheshire, J. L., Damascus
Cheshire, S. L., Thomasville
Childs, J. R., Atlanta
Clark, M. A., Macon
Claxton, E. B., Dublin
Clay, Grady E., Atlanta
Clements, J. R., Pelham
Clifton, Ben H., Atlanta
Coffee, W. P., Fitzgerald
Coile, F. W., Winterville
Coleman, A. S. M., Douglas
Cook, J. M., Sardis
Cook, W. S., Albany
Corn, Ernest, Macon
Covington, J. F., Ashburn
Corry, J. A., Barnesville
Crawford, Herschell C., Atlanta
Crook, W. W., Cuthbert

D

Dancy, Wm. R., Savannah
Daniel, E. L., Atlanta
Daniel, J. W., Claxton
Davis, E. C., Atlanta
Davis, Wm. L., Albany
Davison, Hal M., Atlanta
Davison, T. C., Atlanta
Dean, J. G., Dawson
Dees, J. H., Alston
Derrick, H. C., Oglethorpe
Dexter, C. A., Columbus

Dillard, G. J., Columbus
Dinsmore, V. F., Tifton
Dorminy, J. N., Cordele
Doster, H. W., Rocky Ford
Downman, Chas. E., Atlanta

E

Eaton, Paul, Augusta
Echols, Geo. L., Milledgeville
Edmondson, H. T., Moultrie
Elder, Omar F., Atlanta
Ellis, Chas. L., Kingston
Elrod, J. O., Forsyth
Emery, W. B., Atlanta
Equen, Murdock, Atlanta
Erickson, Mary J., Thomasville
Erwin, H. L., Dalton
Estes, H. G., Atlanta
Ethridge, S. C., Sparks
Evans, J. R., Stone Mountain
Ezell, H. E., Oliver

F

Faggart, Geo. H., Savannah
Fancher, J. K., Atlanta
Ferguson, C. H., Thomasville
Fitts, Jno. B., Atlanta
Fitzgerald, P. H., Blakely
Flournoy, H. C., Warwick
Fort, M. A., Bainbridge
Foster, J. H., Preston
Freeman, Ralph, Hoschton
Fuller, Geo. W., Atlanta
Fullilove, H. M., Athens
Funkhouser, W. L., Atlanta

G

Gaines, Lewis M., Atlanta
Gary, Loren, Georgetown
Gay, Thos. Bolling, Athens
Gerdine, Linton, Athens
Gibson, Wm. A., Thomson
Gilbert, R. B., Greenville
Gilliam, C. D., Columbus
Gleaton, E. N., Savannah
Goodwyn, Thos. P., Atlanta
Gray, J. D., Augusta
Greene, E. H., Atlanta
Greer, Chas. A., Oglethorpe
Griffin, P. E., Edison
Guthrie, Nim, Norcross

H

Hall, O. D., Atlanta
 Hall, Thos. H., Macon
 Hall, W. J., Oakfield
 Hames, Fred, Atlanta
 Harbin, R. M., Rome
 Hardman, L. G., Commerce
 Harris, E. C., Macon
 Harvard, V. O., Arabi
 Head, H. M., Zebulon
 Hendricks, W. H., Tifton
 Heyward, A. R., Warwick
 Highsmith, E. D., Atlanta
 Hill, Roy A., Atlanta
 Hilsman, A. H., Albany
 Hodges, Chas. A., Dublin
 Hodges, J. H., Hapeville
 Hodgson, F. G., Atlanta
 Holland, S. P., Blakely
 Holcomb, T. L., Union Point
 Holmes, Walter R., Atlanta
 Holtz, Louis, Atlanta
 Houston, W. H., Americus
 Howell, J. L., Aragon
 Hubbard, F. M., Commerce
 Hughes, J. M., Glennville
 Hutchins, W. J., Buford

I

Ingram, H. R., Coleman
 Irvin, I. W., Albany

J

Jackson, Zach W., Atlanta
 Johnson, F. M., Atlanta
 Johnson, Trimble, Atlanta
 Jones, H., Coolidge
 Jordon, W. P., Columbus

K

Kay, J. B., Byron
 Keaton, J. C., Albany
 Kelley, Chas. A., Lilburn
 Kelley, D. C., Lawrenceville
 Kennedy, Robt. L., Metter
 Kennedy, W. D., Metter
 Kenyon, J. M., Richland
 Kenyon, Steve P., Dawson
 King, J. L., Macon

L

Lake, Wm. F., Atlanta
 Landham, J. W., Atlanta
 Lanier, J. E., Moultrie
 Lanier, L. F., Rocky Ford
 Lawson, E. L., Moultrie
 Leadingham, R. S., Atlanta
 Lewis, F. L., Camilla
 Lewis, J. H., Dawson
 Lewis, S. J., Augusta
 Little, A. D., Thomasville
 Lindsay, J. A., Cairo
 Logan, J. C., Plains
 Lokey, Hugh M., Atlanta
 Lord, C. B., Ashland
 Lovett, W. R., Sylvania
 Lowry, T., Cartersville
 Lucas, I. M., Albany
 Luke, D. P., Camilla
 Lundy, L. L., Boston
 Lunsford, G. G., Weston
 Lunsford, J. F., Preston

M

Maloy, C. J., Helena
 Maloy, H. S., Milan
 Maloy, J. K., Milan
 Martin, F. M., Shellman

Martin, J. J., Atlanta
 Mashburn, Chas. M., Atlanta
 Matthews, M. F., Athens
 Metts, J. C., Augusta
 Michel, H. M., Augusta
 Miller, B. E., Claxton
 Miller, R. L., Waynesboro
 Miller, W. A., Arabi
 Minchew, B. H., Waycross
 Mixon, J. F., Valdosta
 Mixson, W. D., Waycross
 Mooney, A. J., Statesboro
 Moore, A. L., Cuthbert
 Moore, G. Y., Cuthbert
 Moore, Henry M., Thomasville
 Moore, M. P., Carlton
 Morrison, A. A., Savannah
 Mulherin, W. A., Augusta
 Murphey, Eugene E., Augusta
 Murray, G. S., Columbus
 Myers, W. H., Savannah

Mc

McAlily, R. George, Atlanta
 McAllister, J. M. C., Rochelle
 McArthur, Thos. J., Cordele
 McClain, J. W., Pelham
 McCoy, H. S., Doerun
 McCulloh, Hugh, Jr., West Point
 McCulloh, Hugh, Sr., West Point
 McCullough, K., Waycross
 McCurdy, E. C., Shellman
 McCurdy, W. F., Richland
 McDonald, E. M., Jefferson
 McDougall, Calhoun, Atlanta
 McDougall, Wm. L., Atlanta
 McDuffie, J. H., Columbus
 McElroy, S. L., Ocilla
 McMichael, J. R., Quitman

N

New, J. E., Dexter
 Newman, W. A., Macon
 Niles, Geo. M., Atlanta
 Norman, Frank P., Columbus

O

Olds, Bomar A., Atlanta
 Oppenheimer, R. H., Atlanta
 Osborne, L. S., Fitzgerald
 Owensby, N. M., Atlanta

P

Page, Hugh N., Augusta
 Palmer, J. B., Thomasville
 Palmer, J. W., Ailey
 Parker, G. R., Enigma
 Parry, L. D., Thomasville
 Patterson, F. D., Cuthbert
 Paullin, J. E., Atlanta
 Peacock, Clifford A., Columbus
 Peacock, E. S., Harrison
 Peniston, Paul, Newnan
 Penland, J. E., Waycross
 Person, W. E., Atlanta
 Poer, J. M., West Point
 Prather, W. S., Americus
 Price, J. M., Tifton
 Pruitt, M. C., Atlanta

Q

Quattlebaum, J. K., Savannah

R

Rainey, C. O., Camilla
 Randolph, W. T., Winder
 Reavis, W. F., Waycross
 Redfearn, J. A., Albany

Redmond, C. G., Savannah
 Rehberg, A. W., Cairo
 Reid, C. W., Pelham
 Richardson, C. H., Jr., Macon
 Richardson, C. H., Sr., Montezuma
 Richardson, R. W., Macon
 Riley, J. H., Baconton
 Roberts, C. A., Leary
 Roberts, C. W., Atlanta
 Roberts, J. W., Atlanta
 Roberts, O. W., Carrollton
 Robinson, Hugo, Albany
 Rogers, A. A., Commerce
 Rogers, F. M., Augusta
 Rogers, H. A., Jeffersonville
 Rogers, J. V., Cairo
 Rogers, T. E., Macon
 Roles, C. L., Camilla
 Rouglin, Lewis C., Atlanta
 Roy, Dunbar, Atlanta
 Rozar, A. R., Macon
 Russell, E. A., Fitzgerald

S

Sage, Dan Y., Atlanta
 Sauls, H. C., Atlanta
 Selman, W. A., Atlanta
 Sessions, W. W., Sumner
 Shanks, Edgar D., Atlanta
 Sharp, C. K., Arlington
 Shearouse, J. W., Savannah
 Sibbett, W. F., Douglas
 Sims, W. C., Richland
 Simmons, B. K., Blakely
 Simpson, H. T., Smithville
 Slack, Henry R., LaGrange
 Smith, E. C., Donalsonville
 Smith, H. A., Americus
 Smith, J. M., Valdosta
 Smith, M. R., Cordele
 Spearman, M. W., Chickamauga
 Standifer, J. C., Blakely
 Statham, O. W., Leesburg
 Stephens, C. M., Waycross
 Stockard, Cecil, Atlanta
 Story, W. L., Ashburn
 Stow, M. N., Jesup
 Suggs, C. E., Barnesville
 Summerlin, J. A., Pelham
 Sumner, G. S., Poulan
 Swanson, Cosby, Atlanta
 Swint, R. C., Milledgeville
 Sydenstricker, V. P., Augusta

T

Tatum, W. J., Ft. Gaines
 Thomas, Logan, Dawson
 Thomas, N. R., Albany
 Thomason, W. E., Andersonville
 Thompson, C., Millen
 Thompson, T. C., Vidalia
 Thompson, Wm. C., Dublin
 Thrash, E. C., Atlanta
 Thrash, J. A., Columbus
 Tidwell, J. T., Columbus
 Tippins, H. L., Savannah
 Tipton, W. C., Sylvester
 Toepel, Theodore, Atlanta
 Touchton, Geo. L., Savannah
 Tracy, J. L., Sylvester
 Traylor, Geo. A., Augusta
 Turner, W. J., Ashburn
 Twitty, C. W., Elmodel
 Tye, C. C., Edison

U

Usher, Charles, Savannah

W

Waits, Chas. E., Atlanta
 Walker, D. D., Macon
 Walker, N. P., Milledgeville
 Walker, T. W., Jr., Macon
 Wall, C. K., Thomasville
 Wall, J. C., Eastman
 Wallace, J. W., Thomasville
 Ware, D. B., Fitzgerald
 Ware, Ford, Americus
 Ware, F. L., Warrenton
 Warnock, Raiford T., Atlanta
 Warnell, J. B., Cairo
 Warren, W. C., Jr., Atlanta
 Watkins, W. B., Metcalf
 Watt, Chas. H., Thomasville
 Watts, J. C., Rome
 Webb, Fred L., Macon
 Wells, W. F., Atlanta
 Wheat, R. F., Bainbridge

White, A. F., Flovilla
 Whittendale, W. H., Norman
 Park
 Wilkinson, W. L., Bainbridge
 Williams, B., Pelham
 Williams, C. O., West Point
 Williams, P. L., Cordele
 Williams, R. L., Columbus
 Willis, C. H., Barnesville
 Winchester, M. E., Atlanta
 Winn, J. H., Columbus
 Withers, S. M., Moultrie
 Wise, B. T., Plains

Y

Yampolsky, Jos., Atlanta

VISITORS

Bass, Chas. C., Dean, Tulane
 University of Louisiana School
 of Medicine, New Orleans,
 La. Invited guest of the Asso-
 ciation

Bird, B. Cosby, Montgomery,
 Ala.
 Briscoe, C. DeWitt, Panama,
 R. P.
 Davis, J. C., Jr., Quincy, Fla.
 Elkin, Arch, Atlanta
 Harris, Seale, Past-President,
 Southern Medical Association,
 Birmingham, Ala. Invited
 guest of the Association.
 Hester, W. P., Oxford Univer-
 sity, New York City
 Jeter, Peter, Columbus
 Ketcham, C. L., Leesburg
 Massey, Wm. W., Quincy, Fla.
 Raborn, J. D., St. Petersburg,
 Fla.
 Simpson, Anne Jane, U. S. P. H.
 S., Washington, D. C.
 Tye, J. P., Atlanta
 Windham, L. A., Daleville, Ala.
 Wingfield, P. B., Thomasville

THE DALLAS SESSION

The Seventy-Seventh Annual Session of the American Medical Association at Dallas was a very fine meeting. The attendance was greater than at any other session held in the South and much greater than was recorded at any of several meetings in Northern and Western cities. Slightly more than 4,100 registered and a considerable number failed to register as they should have done.

The programs of the sections were of good quality and were carried out according to schedule. The exhibits, scientific and technical, were complete, well housed, well arranged, interesting and instructive. The work of the House of Delegates went smoothly and with dispatch.

As for entertainment, Dallas was wonderful. Dinners, Mexican dinners, daylight dinners, evening dinners, midnight dinners, morning dinners, formal dinners, informal dinners, every kind of dinners were simply "on tap"—to say nothing of breakfasts and luncheons. And then there was Dr. Dean's barbecue! And banquets, balls, dances, golf tournaments, orchestra concerts, automobile rides and much else that was pleasant. For generous whole-souled hospitality, Dallas is hard to beat.

The city of Dallas opened the eyes of some of the effete who, as Dr. Haggard said in an after dinner speech, have always felt that they were "camping out" when they got

beyond the western boundaries of their own home towns. A splendid city, with great buildings, fine residences, modern streets and other municipal facilities, Dallas exemplifies the spirit of the great Southwest. Those who went to Texas for their first time, expecting to see about seven of every ten of its men wearing four-gallon hats and leather breeches, saw instead the same kind of human beings and evidences on every hand of the same culture that are to be seen in every modern city. Dallas has its schools and colleges that measure up to the standards of the time, and they are being fostered by an intelligent citizenship that is fully awake to the benefits of education and civic progress. Texas is a great empire, advancing all the time. There's no standing still in Texas.

The Dallas County Medical Society, through its Local Committee on Arrangements, of which Dr. E. H. Cary was the genial and efficient chairman, the Texas State Medical Association, the Texas medical schools and every individual physician in Texas who could help at all contributed in every possible manner to the success of the Seventy-Seventh Annual Session. Their generous hospitality will be long remembered by all who were privileged to partake of it. The following are the officers of the American Medical Association, 1926-1927:

President: Wendell C. Phillips, New York.

President-Elect: Jabez N. Jackson, Kansas City, Mo.

Vice-President: John O. McReynolds, Dallas, Texas.

Secretary and General Manager: Olin West, Chicago.

Treasurer: Austin A. Hayden, Chicago.

Speaker, House of Delegates: F. C. Warnshuis, Grand Rapids, Mich.

Vice-Speaker, House of Delegates: Allen H. Bunce, Atlanta, Ga.

Editor and General Manager Emeritus: George H. Simmons, Chicago.

Editor: Morris Fishbein, Chicago.

Business Manager: Will C. Braun, Chicago.

Board of Trustees: Edward B. Heckel, Chairman, Pittsburgh, 1927; Rock Sleyster, Wauwatosa, Wis., 1927; J. H. Walsh, Secretary, Chicago, 1928; A. R. Mitchell, Lincoln, Neb., 1928; D. Chester Brown, Danbury, Conn., 1929; E. H. Cary, Dallas, Texas, 1929; Joseph A. Pettit, Portland, Ore., 1930; J. H. J. Upham, Columbus, Ohio, 1930; Charles W. Richardson, Washington, D. C., 1931.

—Bulletin A. M. A.

ADDRESS OF PRESIDENT WENDELL PHILLIPS TO HOUSE OF DELEGATES OF THE A. M. A.

Since the World War, the histories of foreign nations have been marked by intense nationalism. This nationalistic trend has led them to take advantage of every possible opportunity to exploit their merits, and medical science has been no exception. Unfortunately, many of the medical discoveries thus far proclaimed and promoted as national interests have not fully proved their worthiness. In other words, the rush for publicity has led the promoter far afield from the pathway or proved science.

From Switzerland has come the Spahlinger treatment of tuberculosis; from England, the Gye-Barnard work on cancer, also the Dreyer vaccine for tuberculosis; from France, the Calmette work on vaccination against tuberculosis with living organisms; from Germany, Blumenthal's investigation on cancer, and from Denmark, Sanoerysin.

Not one of these discoveries has thus far been established as of great value, although, according to Park, the Calmette work on

vaccination seems to possess possibilities of virtue.

The United States, on the contrary, without having made any great pretense to the forcing of its scientific discoveries into the nationalistic program, has given to the world remarkable discoveries and scientific advances in medicine.

The work of the Dicks and of Dochez and Blake on scarlet fever seems to be established on a definite scientific basis. The discoveries made on the virtues and the relation of light to rickets represent another real achievement in the advance of science.

The toxin-antitoxin prevention of diphtheria has been definitely and positively proved. An intense antidiphtheria campaign carried on in the city of Auburn, N. Y., has been so successful that no deaths from diphtheria have occurred in that city for the last two years. An antidiphtheria campaign now going on in New York State carries the slogan "No diphtheria in New York State in 1930," and the state commissioner of health believes that this is possible. It would seem that the future holds out hope that diphtheria—the dread destroyer of child life—may ultimately disappear, at least as an epidemic disease.

We may also claim a distinct advance in studies related particularly to the elimination of scarlet fever, measles, and possibly whooping cough. Moreover, the United States may truly be called "teacher to the world" in organization and methods of preventive medicine.

All these are distinct achievements in the advance of medical science, but in this country they have not been promoted in a nationalistic spirit. They have been offered freely to the world as our contribution. Let us not hesitate to do all in our power to give our own people the knowledge and the benefit of these discoveries. The public should know that children may be made immune from diphtheria as surely as from smallpox, and every physician should endeavor to persuade all patients to safeguard their children, especially those of preschool age, by the employment of preventive treatment.

During the last few years, many of our

leaders of medical thought, and particularly those clothed with the responsibility of outlining medical policies, have given serious consideration to the subject of public health education. There has been a slight awakening of the medical conscience as to the trusteeship of physicians as promoters of individual and community health. These pioneers have become alive to the fact that physicians only are qualified by heritage, by education and by experience to give to the public the basic principles of health preservation, and the protection of life that is afforded by sanitation and the scientific application of all the phases of preventive medicine. Given such responsibility, I ask you in all seriousness whether the medical profession of the country has ever lived up to its great opportunity to teach the people how to keep well. It sounds like a simple thing to do, but the reticence of medical men and the innate fear of publicity, the supposed restriction of ethical limitations, have tended to prevent these great educators from fully covering this proper field for a physician's activity.

Nevertheless, there has gradually developed on the part of the public demands for public health education. Gradually great newspapers and newspaper syndicates are coming to realize that public health knowledge is a valuable commodity for which the people are willing to pay. This tendency is leading newspapers, magazines and newspaper syndicates to realize that the public must be given the true facts regarding individual and community health. This further knowledge in turn is showing its influence by the gradual elimination from these publications of the publicity which is sought by nostrums, cults, quackery and other menaces to the public health. This naturally engenders a desire to purvey only well founded information regarding health matters.

In the quest for such information on the part of great publications, they have learned that organized medicine is the only possible source from which correct information can be obtained. Our headquarters is well equipped to furnish every form of advice and counsel that any publication may need regarding

irregularities and fakes. We are able from headquarters to supply health educational material covering a wide variety of topics, but we must not forget that a hundred and fifteen million people in the United States need information and education both as individuals and as communities. The American Medical Association has positively and definitely entered the field of public health education. We have shown this in various ways, particularly by the publication of *Hygeia*, which is distinctly a public health journal, devoted to individual and community health. I am happy to say that this journal is proving its worth and is rapidly becoming the text for sound public health principles.

We have also endorsed the scheme for periodic health examinations, and we are beginning to promote this wise, humane, healthful program through our county and state societies. We are also entering into co-operative relationship with great newspaper and magazine agencies, through whom information from the highest medical sources is furnished to the public over the names of the men who write the articles. These are all steps in the right direction, but as I see it they mark only the entering wedge into what must eventually become universal health education, participated in by every medical practitioner as one of the basic duties of his profession. There should be in the United States a great public health preventive medicine university with a hundred and fifty thousand physicians as teachers. Universal health education of the public received from a properly informed physician will eventually result in a new type of patient and an increased activity for the physician, which will greatly enhance not only his field of service but also his financial status.

I am convinced that modifications in the undergraduate curriculum that will provide for broader education in preventive medicine, public health, psychology and sociology should receive serious consideration on the part of medical educators.

To this end I recommend that the House of Delegates urge every practitioner of medicine to become a public health educator in

the broadest sense of that term; that the American Medical Association devote sufficient time to the development of ways and means for properly conveying personal and community health education; and that either by the appointment of a special committee or through one of the bureaus of the Association an intense survey of the general subject of public health education should be inaugurated and reported on at the 1927 meeting of the House of Delegates.

REGISTERING AT THE DALLAS MEETING

Bailey, T. S., Newnan
 Boykin, P. A., Jeanerett
 Bunce, Allen H., Atlanta
 Calhoun, F. Phinzy, Atlanta
 Chason, Gordon, Bainbridge
 Cook, W. S., Albany
 Garner, James R., Atlanta
 Gaunt, T. G., West Point
 Grubbs, L. F., Americus
 Hale, B. C., Rossville
 Herman, Emery C., LaGrange
 McCulloh, Hugh, West Point
 Oppenheimer, R. H., Emory
 University
 Paullin, James E., Atlanta
 Phillips, W. Parks, LaGrange
 Roberts, Stewart R., Atlanta
 Selman, W. A., Atlanta
 Thrash, E. C., Atlanta
 Wise, B. T., Plains

COMMUNICATIONS

Dr. Allen H. Bunce,
 Atlanta, Ga.

Dear Doctor Bunce:

As Secretary of the American Medical Association, it is my very pleasing duty to notify you officially of your election, at the annual session held in Dallas, to the Vice-Speakership of the House of Delegates.

I congratulate you upon your election to this important position and want to assure you that it will be a great pleasure to me to serve you in any way that I can.

Very sincerely yours,

—OLIN WEST.

To the Editor:

We have an opening in Cedartown for a physician as a partner in a well established hospital and office with good practice. If interested, communicate with

P. O. CHAUDRON,
 Cedartown, Ga.

To the Editor:

I wish to congratulate you and all of the Association upon your election to Vice-Speaker of the house at the Dallas meeting. I am glad that a Southern man was so honored. I am sure that you will worthily fill this office and I hope later on for your promotion.

With kind personal regards, I am,

Yours sincerely,

H. A. ROYSTER, M.D.

Raleigh, N. C., May 4, 1926.

To the Editor:

The material recently forwarded to me from your office in reference to the proposed medical service for all ex-service men was reworded to form a personal letter to our senators. These letters were multigraphed and a copy sent to each of our members with the request that he have his secretary copy the letter on his own stationery and forward it to Washington or at least sign the mimeographed copy and send it in. In addition a list of the committee having this matter under consideration was attached and each member was asked to send a similar copy to each of these men if he would (and many have told me they have).

I was afraid the local legion chapter might get word of the matter and after being stirred up exert influence in the opposite direction. A member of the executive committee of the legion chanced to be in the office of one of our members when the letter was received. He asked for the letter and read it before the executive committee of the post. The response was most energetic and entirely against the proposed legislation. It is planned to bring this matter before the state meeting of the legion in Albany this Spring in the hope that they in turn will pass resolutions against which will be passed on to the national meeting of the legion. It will make it much easier for our representative in Albany if he will send the data (such as was sent to me) to each post in the state. Judging by the reaction of our post I believe they will all see the selfishness of the measure and give us their support. At Washington it will be expected that most of the

doctors would be against such a measure. But to have the very men expect to help express themselves against it would have force indeed.

Very truly yours,
F. B. BLACKMAR, M.D.,
Columbus.

FIFTY YEARS OF PROGRESS

May 10, 1926.

On this, the Fiftieth Anniversary of our house, we sincerely thank the physicians of the United States for the co-operation and patronage they have given us so generously.

The past fifty years have been epoch making in the advancement of scientific knowledge and its application to the useful arts. In no field has this progress been more significant than in medicine, where it has done so much to enlarge our understanding of disease and to improve medical practice.

Many years ago we recognized the trend of medicine along scientific lines. A research staff was organized and soon became a dominant factor in the business, playing an important role in the development of the little laboratory of 1876 into one of the greatest institutions of its kind in the world.

On the following pages you will find brief statements of our ideals, policies and activities, which we hope will interest you.

In the beginning the next period of our career, again we pledge adherence to the best traditions of the past, and careful attention to the progressive guidance of scientific medicine. By this policy we shall endeavor to merit the continuance of your confidence and good will.

Sincerely yours,
ELI LILLY & CO.,
J. K. Lilly, Pres.

ANNOUNCEMENT OF SUMMER COURSE OF INSTRUCTION IN MEDICINE AND SURGERY AT EMORY UNIVERSITY

The School of Medicine of Emory University will give a course of free instruction in clinical work to medical students and graduates in medicine from Monday, July 5, to Saturday, July 17, 1926. The time will be

devoted entirely to clinical and laboratory work; there will be no didactic lectures.

The morning work will consist of amphitheater clinics with exhibition of patients; bedside instruction in medicine, surgery, obstetrics, and pediatrics; and practical work in clinical microscopy. These will be held at Wesley Memorial Hospital and the Emory University division of Grady Hospital. The afternoons will be devoted to clinical microscopy, and bedside and clinic instruction at the Emory division of Grady Hospital. Clinics will be held also at Battle Hill Sanatorium, the Old Soldiers' Home, the Home for Old Ladies, the Cancer Clinic, and the Hospital for Contagious Diseases.

The first assembly will be on July 5, 1926, at 9 A.M. in the senior lecture room of the Emory division of Grady Hospital, corner of Butler and Armstrong Streets, Atlanta, Ga. Printed programs will be presented at this meeting and a general outline of the methods and purposes of the clinics will be described.

The course of instruction will be given entirely by the medical faculty of Emory University. No matriculation or tuition fee will be charged.

Only a limited number of applicants will be accepted. Those desirous of attending must have their applications on file in the Dean's office by June 15, 1926. Address applications to

Dean, School of Medicine, 50 Armstrong St.,
Atlanta, Ga.

REPORT ON ANTISTREPTOCOCCUS SERUM

Of twenty-five leading surgeons, gynecologists and obstetricians who were questioned by Emil Novak, Baltimore (Journal A. M. A., Jan. 16, 1926), as to their opinion of antistreptococcus serum, sixteen considered it of no value, one said he knew nothing about it, and eight expressed the opinion that, while usually unsatisfactory, it might for certain indications be of real value. The chief of these was for a supposed protective or prophylactic action, while occasional good results are mentioned where the proper strain of streptococcus happens to be selected. Not a single one of the twenty-five questioned evinced any degree of enthusiasm for the serum.

MARRIAGES

Dr. John T. King, of Thomasville, was married to Miss Mary Balfour, of Thomasville, on April 10, 1926.

District and County Societies

District Editors

1. McGee, H. H., Savannah.
2. Watt, C. H., Thomasville.
3. Greer, Chas. A., Oglethorpe.
4. Williams, O. O., West Point.
5. Pitts, Jno. B., Atlanta.
6. Thompson, O. R., Macon.

7. McCord, M. M., Rome.
8. Carter, D. M., Madison.
9. Bennett, J. C., Jefferson.
10. Lee, F., Lansing, Augusta.
11. Mixson, W. D., Waycross.
12. Cheek, O. H., Dublin.

1926 HONOR ROLL

The following is a list of counties 100 per cent in membership for 1926. The date on which each became a 100 per cent society appears after the name of the society, together with the name of the secretary:

1. Randolph County, Dr. G. Y. Moore, Cuthbert, November 5, 1925.
2. Warren County, Dr. Robert C. McGahee, Warrenton, December 22, 1925.
3. Dougherty County, Dr. Albert S. Bacon, Albany, January 4, 1926.
4. Upson County, Dr. H. A. Barron, Thomaston, January 7, 1926.
5. Lamar County, Dr. John M. Anderson, Barnesville, January 21, 1926.
6. Crisp County, Dr. J. N. Dorminy, Cordele, February 4, 1926.
7. Evans County, Dr. D. S. Clanton, Hagan, February 13, 1926.
8. Stephens County, Dr. C. L. Ayers, Toccoa, March 12, 1926.
9. Emanuel County, Dr. R. C. Franklin, Swainsboro, March 20, 1926.
10. Turner County, Dr. J. H. Baxter, Ashburn, March 31, 1926.
11. Screven County, Dr. J. C. Cail, Sylvania, April 23, 1926.
12. Wayne County, Dr. M. N. Stow, Jesup, May 4, 1926.
13. Pike County, Dr. M. M. Head, Zebulon, May 4, 1926.
14. Terrell County, Dr. Logan Thomas, Dawson, May 11, 1926.

FULTON COUNTY MEDICAL SOCIETY

An interesting meeting of the Fulton County Medical Society, was held at the Academy of Medicine, 32 Howard St., Atlanta, Ga., Thursday evening, April 15, 1926. Dr. J. L. Campbell presided.

Drs. W. S. Goldsmith and Leadingham

reported cases of "Abscess of Liver, operation and recovery." Ardeno-Carcinoma of the Appendix," and "Pyelotomy for Stone in the Kidney." "An Unusual Pyelogram and the Findings at Nephrectomy" was reported by Dr. E. G. Ballenger. These case reports were discussed by the following men: Drs. Barber, Person, Donaldson, Selman, Wood and N. W. Baird. Dr. L. G. Bagget reported a case of "Duodenal Ulcer" and Dr. Lee Bivings gave a case report, Croup or Diphtheria? which was discussed by Drs. Euen, Wood and Redd. The clinical talk was by Dr. Trimble Johnson on "Studies of the Human Colon" and discussed by Dr. Niles.

The paper of the evening was read by Dr. L. W. Grove on "Subdiaphragmatic Abscess with Suggestions for Prevention." Discussion was by Dr. E. C. Davis, F. W. McRae, Chas. Bivings, W. A. Selman, G. W. Fuller and W. S. Goldsmith.

Another very interesting meeting of this Society was held, Thursday evening, May 6th, at the Academy of Medicine, 32 Howard St., Atlanta. The president, Dr. J. L. Campbell presided and 157 members were present.

A case report "Unilocular Congenital Cyst of the Kidney" was presented by Dr. G. W. Williams and Dr. Pendergrass reported cases of "Soft Tumor, Forearm Amputation, Injection of Arteries with Metallic Mercury and Other Specimens." This was discussed by Drs. Selman and Davenport. Dr. Dan Elkin reported a case of "Closed Drainage in Empyema" which was discussed by Drs. J. N. Ellis, Davenport and T. C. Davison. Dr. W. L. Ballenger reported a case of "Intestinal Hemorrhage" and this was discussed by Drs. Thrash and Fanning. A case report by Dr. A. H. Bunce, "Jacksonian Epilepsy," was discussed by Drs. Weaver and Leadingham. Dr. M. Hines Roberts

reported a case of "Subcutaneous Empyema" which was of interest.

After the regular order of business was observed the President called for the election of Delegates to the State Medical Association. The following delegates and alternates were elected by ballot:

Dr. C. E. Waites, alternate Dr. D. Y. Sage.
 Dr. M. T. Benson, alternate Dr. C. C. Aven.
 Dr. W. F. Wells, alternate Dr. H. C. Sauls.
 Dr. M. C. Pruitt, alternate Dr. J. N. Brawner.
 Dr. Theodore Toepel, alternate Dr. G. P. Huguley.
 Dr. E. D. Shanks, alternate Dr. O. O. Fanning.

There being no further business to come before the Society at this time, the motion was in order to adjourn.

Respectfully submitted,

GRADY E. CLAY
 Secretary.

MINUTES OF SECOND DISTRICT MEDICAL SOCIETY, TIFTON, GA.,
 APRIL 9, 1926

Meeting called to order at 11 A. M. by Dr. C. K. Sharp, Pres.

After the Invocation by the Reverend Mr. J. H. House, of Tifton, an address of welcome was delivered in a few well chosen words by the Honorable Mr. J. S. Redgville, of Tifton.

Dr. Sharp thanked the Tifton representatives in behalf of the society for their hearty welcome.

The minutes of the last meeting were then read and approved after which the scientific program was taken up.

1. The first paper on the program was "Six Years Experience with Radium" by Dr. C. K. Wall of Thomasville. This paper was most interesting and instructive and showed that the writer was well acquainted with his subject.

Dr. Wall's paper was discussed by Drs. Little and Parry, both of Thomasville. Dr. Little emphasized the importance of not over exposing the tissues to radium and stated that tissues were inclined to develop a certain amount of immunity to radium. Dr. Parry discussed the use of radium alone and in conjunction with deep X-ray therapy.

2. "Surgery of the Chest" was the subject of an interesting and comprehensive discourse given by Dr. Frank K. Boland, President of the State Medical Association. Dr. Boland spoke without manuscript in his pleasing manner and brought out many points of fundamental importance in this latest specialty.

Dr. Boland's subject was discussed by Drs. C. H. Watt, Patterson and C. K. Sharp.

3. The third subject on the program was "Practical Points in the Diagnosis and Treatment of Kidney Disease." This was presented by Dr. Allen Bunce, Secretary of the State Medical Association, and was also given without manuscript and in a most common sense and practical way. He brought out many points in the diagnosis which should be of great help to those in general practice who have not ready access to a large laboratory. The suggestions as to treatment were based on sound reasoning and well founded principles of physiology and pathology.

The discussion was opened by Dr. R. S. Leadingham of Atlanta. He recommended the use of a new diuretic "Novasurol" in cases of chronic nephritis.

Following Dr. Bunce's paper the meeting was adjourned for lunch which was most delightful with abundance of good things to eat, served by the ladies of Tifton and made most enjoyable by the addition of several musical numbers. After lunch the program was continued.

4. The fourth paper was presented by Dr. J. A. Redfern of Albany on "Some Points in the Diagnosis and Treatment of Pulmonary Tuberculosis." In this paper Dr. Redfern emphasized the importance of early diagnosis and stated that many of these early cases can be cured by proper treatment at home. X-ray of normal and tuberculous chests were shown. In outlining the treatment the writer emphasized the importance of giving the patient specific directions to follow to the letter.

This paper was discussed by Drs. Allen H. Bunce and L. D. Parry, the latter emphasizing the value of stereoscopic X-rays over the flat plate in chest cases.

5. The next paper on the program, "Prevention and Treatment of Undernourish-

ment in Children," was read by Dr. I. M. Lucas of Albany. Dr. Lucas emphasized the importance of proper prenatal care of mother, gave suggestions for diets in infancy and stated that he believed the diet should be watched until puberty. The importance played by the teeth, tonsils, feet and posture were not omitted in this paper. Dr. Lucas' paper was discussed by Drs. J. F. Covington, J. M. Price and J. A. Redfern.

The last paper on the program had to be omitted owing to the absence of Dr. Irvin who was scheduled to appear.

BUSINESS SESSION

Committees consisting of Drs. C. K. Wall, J. A. Redfern and M. T. Smith were appointed to decide next place of meeting, nominate officers for coming year and select men from the District to write papers for the next meeting.

At this time it was moved by Dr. Little and seconded by Dr. Wall that the Secretary be authorized to donate as much as the treasury would stand to the Dougherty County Medical Society to help them defray the expenses of the State Medical Meeting in May. This was carried unanimously.

It was felt that this meeting was a South Georgia meeting and the Society felt honored to be able to help Albany in this way.

Financial report made by Secretary showed that \$150.00 would be about the amount Albany could expect to receive from this source.

Following report made by committee:
Meeting place, Thomasville, Ga. October, 1926

Officers

President.....J. A. Summerlin, Pelham
Vice-President.....W. S. Cook, Albany
Sec. Treas.....C. H. Watt, Thomasville

Respectfully,

Chas. H. Watt, M. D., Secretary

COUNTIES REPORTING FOR 1926

TATTNALL COUNTY MEDICAL SOCIETY

The Tattnall County Medical Society announces the following officers for 1926:

President—J. C. Harris, Reidsville.
Vice-President—Jno. H. Bowen, Cobbtown.
Secretary-Treasurer—J. C. Collins, Collins.
Delegate—L. V. Strickland, Cobbtown.

Board of Censors—J. C. Harris, J. C. Collins and R. D. Jones.

JACKSON COUNTY MEDICAL SOCIETY

The Jackson County Medical Society announces the following officers for 1926:

President—O. E. Shankle, Commerce.
Vice-President—H. E. Crow, Talmo.
Secretary-Treasurer—J. C. Bennett, Jefferson.
Delegate—Ralph Freeman, Hoschton.
Alternate—L. G. Hardman, Commerce.

Board of Censors—F. M. Hubbard, W. C. Kennedy and L. J. Sharp.

FRANKLIN COUNTY MEDICAL SOCIETY

The Franklin County Medical Society announces the following officers for 1926:

President—Stewart D. Brown, Royston.
Vice-President—E. T. Pool, Lavonia.
Secretary-Treasurer—B. T. Smith, Carnesville.

SCREVEN COUNTY MEDICAL SOCIETY

The Screven County Medical Society announces the following officers for 1926:

President—W. W. Evans, Haleyondale.
Vice-President—H. E. Ezell, Oliver.
Secretary—J. C. Cail.
Treasurer—L. F. Lanier, Rocky Ford.

LAMAR COUNTY MEDICAL SOCIETY

The Lamar County Medical Society announces the following officers for 1926:

President—D. W. Pritchett, Barnesville.
Vice-President—J. M. Rogers, Barnesville.
Secretary-Treasurer—Jno. M. Anderson, Barnesville.

Delegate—C. E. Suggs, Barnesville.
Alternate—J. A. Corry, Barnesville.
Censors—C. E. Suggs, J. M. F. Barron and C. H. Willis.

HABERSHAM COUNTY MEDICAL SOCIETY

The Habersham County Medical Society announces the following officers for 1926:

President—J. K. Burns, Clarkesville.
Vice-President—O. N. Harden, Cornelia.
Secretary-Treasurer—W. H. Garrison, Clarkesville.

Delegate—R. B. Lamb, Demorest.
Alternate—W. V. Chandler, Baldwin.
Censors: J. H. McClure, W. V. Chandler and P. Y. Duckett.

DECATUR-SEMINOLE COUNTIES MEDICAL SOCIETY.

The Decatur-Seminole Counties Medical Society announces the following officers for 1926:

President—S. A. Y. Christophine, Attapulgis.
Vice-President—W. L. Wilkerson, Bainbridge.
Secretary-Treasurer—L. W. Willis, Bainbridge.
Delegate—R. F. Wheat, Bainbridge.

Woman's Auxiliary Medical Association of Georgia

OFFICERS

President.....Mrs. C. W. Roberts, Atlanta Vice-President-at-large, Mrs. W. L. Davis, Albany
Secretary-Treasurer, Mrs. Marion T. Benson, Atlanta

District Managers

1st District.....Mrs. A. J. Waring, Savannah	7th District.....Mrs. W. H. Perkinson, Marietta
2nd District.....Mrs. Gordon Chason, Bainbridge	8th District.....Mrs. Paul Holliday, Athens
3rd District.....Mrs. R. H. Pate, Unadilla	9th District.....Mrs. J. H. Downey, Gainesville
4th District.....Mrs. R. S. O'Neal, LaGrange	10th District.....Mrs. T. E. Oertel, Augusta
5th District.....Mrs. James N. Brawner, Atlanta	11th District.....Mrs. B. H. Minchew, Waycross
6th District.....Mrs. C. H. Richardson, Jr., Macon	12th District.....Mrs. T. C. Thompson, Vidalia

WOMAN'S AUXILIARY OF THE MEDICAL ASSOCIATION OF GEORGIA

OFFICERS

President, Mrs. C. W. Roberts, Atlanta.
Vice-President-at-large, Mrs. W. L. Davis, Albany.
Secretary-Treasurer, Mrs. Marion T. Benson, Atlanta.

THE WOMAN'S AUXILIARY TO THE STATE MEDICAL MEET IN ALBANY

The Woman's Auxiliary to the Medical Association of Georgia held its second annual meeting in Albany on May 12, 13, 14, 1926. The Woman's Club being the headquarters.

PROGRAMME

Wednesday

11:00 A.M. Meeting of Executive Board with Delegates. Mrs. Wm. H. Myers, President, presiding; followed by Luncheon, Mrs. W. L. Davis, Toastmistress.

4:00 P.M. Drive to places of interest, starting from Woman's Club.

5:00 to 7:00 P.M. Tea at the Kinchapoonee Country Club, given by Executive Board of Woman's Club, honoring the officers of the Woman's Auxiliary to Medical Association of Georgia, and visiting ladies.

Thursday

11:00 A.M. Annual Session, Mrs. Wm. H. Myers, President, presiding.

Invocation, Rev. John Moore Walker.

Address of Welcome, Mayor E. H. Kalmon.

Response, Mrs. B. H. Minchew, Waycross.

Address, "The Stewardship of Organized

Medicine in Georgia," Dr. C. W. Roberts, Atlanta.

8:00 P.M. Banquet, Mrs. W. L. Davis, Toastmistress; followed by Dance, Elk's Club.

Friday

Executive Meeting of newly elected officers.

President, Mrs. C. W. Roberts, Atlanta.

Vice-President-at-large, Mrs. W. L. Davis, Atlanta.

Secretary-Treasurer, Mrs. Marion T. Benson, Atlanta.

Parliamentarian, Mrs. Allen H. Bunce, Atlanta.

The District Managers will be given next month as more time was needed to complete the lists. In compliance with the changes in the constitution these managers will be selected by the President.

The luncheon at the Gordon Hotel on Wednesday presided over by Mrs. W. L. Davis of Albany, was a delightful affair. The tables were beautifully decorated and several musical numbers were enjoyed.

The tea at the Kinchapoonee Country Club after a drive around the city to points of interest was a lovely close to a busy day. The club grounds are beautiful and in the distance could be seen a number of doctors enjoying a game of golf after the business sessions of the morning.

On Thursday night at The New Albany Hotel a delightful banquet was given. Several short speeches were made by the outgoing and incoming officers. Afterward the ladies adjourned to the Elk's Hall, where

they were pleasantly entertained by a vaudeville and dance.

A most cordial welcome was extended the visiting ladies by the Woman's Auxiliary of Albany. It was a most enjoyable meeting from a social as well as a business standpoint.

Mrs. MARION T. BENSON,
Secretary-Treasurer.

NEWS ITEMS

Dr. Chas. L. Ridley, Macon, former superintendent of the Macon Hospital, has accepted the position of chief medical director of the Bankers' Health and Life Insurance Company.

Dr. J. R. Clements succeeds Dr. Chas. L. Ridley as physician-surgeon of the Macon Hospital.

The Laurens County Medical Society held an interesting meeting on April 14 in the city hall at Dublin with an unusually large number in attendance. Physicians from Dudley, Brewton, Ailey, Vidalia and other nearby towns were present.

Dr. Chas. Edward Dowman, Atlanta, attended the meeting of the Laurens County Medical Society in Dublin on April 14 and read a paper on, "Injuries to the Hand and Brain"; Dr. M. L. Boyd, Atlanta, read a paper on, "Technique of Operations".

Dr. Ralph Williams, Columbus, has been elected city physician.

Dr. R. B. Crichton, former city physician for Columbus, will devote his entire time to his duties as interne at the City Hospital in Columbus.

Dr. J. Calvin Weaver announces the removal of his offices to 58 Ellis Street, Atlanta.

The July issue of Medical Life will be a Stomatology Number devoted entirely to the history of Stomatology by Dr. A. J. Asgis of New York. The issue will be profusely illustrated. There will also be a chapter by E. B. Hardisty on Stomatologic Education in the Medical and Dental Schools in the United States in 1926.

Dr. W. E. Benson, Marietta, was elected president of the Seventh District Medical Society at a meeting held at Marietta on April 14. The fall meeting of the society will be held in Cartersville.

Dr. and Mrs. B. C. Adams of Thomaston, entertained the Upson County Medical Society at their home on April 22. Mrs. Adams was a delightful hostess.

The City Hospital of Milledgeville has opened its doors after being closed for several weeks with Miss Camp of Newnan, superintendent.

Dr. J. N. Cheney has been elected president, Dr. J. L. Chandler, Vice-President, and Dr. M. M. McCord, Secretary-Treasurer, of the Frances Berrien Hospital, Rome. The medical and surgical staff of the hospital has been reorganized to meet the requirements of the American College of Surgeons in their standardization of hospitals.

Dr. J. P. Kennedy was one of the speakers at the social service health conference held at 23 East Cain Street under the auspices of the Tuberculosis Association on April 24.

Dr. W. R. Daney, President of the Chatham County Medical Society, said that they had planned to remodel and enlarge their society building at 612 Drayton Street, Savannah. Dr. Geo. L. Touchton has arranged with the contractors to complete the work.

Dr. L. G. Hardman of Commerce, entertained the Georgia Editors at his farm, "Lake Alsyon," in Lowndes County.

Dr. Thomas J. McArthur of Cordele, has been appointed a member of the State Board of Medical Examiners.

The new catalog just printed by William Wood & Company, Publishers, 51 Fifth Avenue, New York City, contains descriptions and prices of a variety of books on medicine and surgery.

Dr. H. M. Fullilove of Athens, was elected president of the Railway Surgeons' Association on May 11 at their annual meeting in Albany; Dr. J. P. Bowdoin, Atlanta, 1st Vice-President; Dr. W. M. Folks, Waycross, 2nd Vice-President; Dr. A. H. Hilsman, Albany, 3rd Vice-President; Dr. J. W. Palmer, Ailey, Secretary-Treasurer.

Dr. E. L. Connally celebrated his ninetieth birthday on May 6 at his home on Ashby Street in West End. Many friends called during the day to pay him honor.

Dr. Arch C. Cree, General Superintendent of the Georgia Baptist Hospital, was master of ceremonies at the laying of the corner stone of the new unit of the hospital on Sunday afternoon, May 9. Mayor Walter A. Sims was the principal speaker.

Dr. J. W. Story, President of the Houston County Medical Society, entertained the members of his county society and a number of doctors from Macon on the evening of May 7 at the Perry Hotel in Perry. They had an interesting and well de-

livered program. They decided to appoint two doctors to present clinical cases with papers on same for each meeting.

Dr. E. K. McLean, formerly of Thomasville, has moved to Miami, Florida, and engaged in the practice of pediatrics.

Dr. A. W. Wood, formerly of Albany, and Dr. L. A. Baker, formerly of Tifton, have moved to Florida. They were prominent members of the Second District Medical Society and have the best wishes of the Society in their new homes.

The American College of Physical Therapy announces a prize contest for fourth and fifth year medical students from recognized Medical Schools. The papers must be limited to 2,000 words, accompanied with a short abstract of 200 words or less. The paper must be submitted to Dr. D. Kobak, 30 North Michigan Avenue, Chicago, not later than August 15. There will be six prizes totaling \$2,500.

Dr. J. M. Anderson, Columbus, attended the Medical Association of the State of Alabama meeting in Mobile April 27-30 as a Fraternal Delegate from Georgia. He was accompanied by Mrs. Anderson.

Dr. H. G. Weaver will be temporary City and County health officer for Macon and Bibb County until the health department can secure an official to serve permanently.

Dr. J. R. McMichael, Quitman, has been appointed to the associate staff of the John D. Archbold Memorial Hospital, Thomasville.

Dr. E. K. McLean of Thomasville, has completed arrangements to move to West Palm Beach, Florida, and continue the practice of medicine there with a prominent physician of that city.

SHEPPARD-TOWNER ACT

Those who believe that the Sheppard-Towner act is essentially pernicious will do well to continue their efforts to defeat any legislation looking toward the extension of the act for any period whatever. Action toward that end may accomplish its purpose, and even if it does not, it will tend to support the recommendation of the committee for a one year extension only. Protests, to be effective, should be sent immediately, by telegram or special delivery, as the bill may come up for action at any time.

BOOKS RECEIVED

Diseases of the New-Born, A Monographic Handbook, by John A. Foote, M.D., Professor of Diseases of Children, Georgetown University Medical School, including chapters by Prentiss Willson, M.D., James M. Moser, M.D., et al. Containing 231 pages: Illustrated. Price, Cloth \$5.00. Publishers: J. B. Lippincott Company, Philadelphia.

Feeding of the Nutritional Disorders in Infancy and Childhood, by Julius H. Hess, M.D., Professor and Head of the Department of Pediatrics, University of Illinois College of Medicine. Fourth revised and enlarged edition: Illustrated with forty-two engravings. Publishers: F. A. Davis Company, Philadelphia.

The Thyroid Gland, by Charles H. Mayo, M.D., Professor of Surgery, University of Minnesota, Mayo Foundation, Rochester, Minnesota, and Henry W. Plummer, M.D., Professor of Medicine, University of Minnesota, Mayo Foundation, Rochester, Minnesota. Series Number Four. Containing 83 pages. Publishers: The C. V. Mosby Company, St. Louis. Price: Cloth, \$1.75.

A Manual of Normal Physical Signs, by Wyndham B. Blanton, M.D., Richmond, Virginia, Associate in Medicine, Medical College of Virginia. Containing 215 pages. Publishers: The C. V. Mosby Company, St. Louis. Price: Cloth, \$2.50.

Nursery Guide, for Mothers and Children's Nurses, by Louis W. Sauer, Ph.D., M.D., Senior Attending Pediatrician, Evanston Hospital; Formerly attending physician Chicago Infant Welfare, Chicago. Containing 206 pages. Publishers: The C. V. Mosby Company, St. Louis. Price: Cloth, \$2.00.

BOOK REVIEW

Modern Methods of Amputation, by Thomas G. Orr, A.B., M.D., F.A.C.S., Professor of Surgery, University of Kansas. Published by C. V. Mosby Company, 508 North Grand Boulevard, St. Louis, Mo. Price, \$3.50.

Here we have a monograph of ninety-seven pages, half of which is reading matter. One hundred twenty-five illustrations make up the other half. The Medical Profession today is clamoring for books written in a concise, practical, workable manner, instead of having to read page after page of ninety-nine per cent words in order to get a single idea.

Each tissue to be handled, every surgical procedure, and all amputations are taken up in a manner in which one can get what one wants in a few minutes—especially the occasional emergency operator.

Function is the key note to each amputation, so that by the proper placing of flaps and handling of stumps, an artificial limb may be made the more serviceable.

J. W. ROBERTS, M.D.,
436 Peachtree Street.

Potter's Therapeutics, Materia Medica and Pharmacy, Revised, by R. J. E. Scott, M.A., B.C.L., M.D., is again on the market in its fourteenth edition. That fourteen editions have been printed since 1886 speaks for itself of the popularity of the book. Not many changes have been made in the general plan adopted by the author. The subject matter has been brought up to date to conform to the revision of the United States Pharmacopoeia and due consideration is given to the recommendations made by the Council on Pharmacy and Chemistry of the American Medical Association namely to simply modern therapeutics. Its greatest value consists in that it serves as a compendium of information regarding both official and non-official drugs. It is published by P. Blakiston's Son & Co., 1012 Walnut St., Philadelphia, Pa., and should be in the library of every progressive physician.

THEODORE TOEPEL, M.D.

Clinical Medicine for Nurses, by Paul H. Ringer, A.B., M.D., Chief of Medical Service of the Asheville Mission Hospital, Asheville, N. C.; Member of Staff of Biltmore Hospital, Biltmore, N. C. Second Revised Edition, 12 mo. Cloth. Illustrated; 306 pages. Price, \$2.50 net. F: A. Davis Company, Publishers, Philadelphia, 1925.

The subject matter of this little book represents the substance of lectures on medical diseases that the author has delivered for several years at the Asheville Mission Hospital.

As he states in the preface, "The object of these lectures is to place in concrete form a fairly detailed description of the points in the various diseases that nurses will be expected to observe and interpret. The main points dwelt upon have been symptoms and their meaning, complications, and their detection, as far as the nurse is concerned."

This volume is a very good one for use in a training school for nurses. It is well written and concise. The subject matter is presented in an impressive manner, and is interesting from a historical standpoint.

No doubt the author has had a wide experience, and has a right to limit the subject matter of this book as he sees fit. The reviewer believes that this volume is a valuable contribution to nurses training schools.

The author deserves considerable credit for this work, and for his effort to give us better and more efficient nurses. Nurses should be endowed with a fair degree of common sense. The doctor needs her help, both in diagnosis and treatment.

R. T. WARNOCK, M.D.

Pseudo-Appendicitis. A Study of Mechanical Syndromes of the Right Lower Quadrant Simulating Appendicitis. By Thierry De Martel and Edouard Antoine. Philadelphia. F. A. Davis Company. 1925.

De Martel and Edouard Antoine of Paris have made a complete study of many conditions that are often diagnosed appendicitis. They have made observations on painful syndromes of the right flank and iliac fossa and classified them. In this classification, consideration is given the morbid lesions which can imitate or be associated with chronic appendicitis.

Very clearly the reader is shown how easy it is to diagnose appendicitis when in reality no pathology exists in the appendix. So often these cases are subjected to operation, an innocent appendix removed, the patient recovers, and subsequently returns complaining of the identical symptoms for which the surgeon operated! The authors advocate the making of an incision, in all cases going to the operating table, of ample length to facilitate the thorough examination of the abdominal contents. It would seem that the only value the tiny button-hole incision for "chronic appendicitis" has in surgery is as a fit subject for ridicule. Good exposure is absolutely necessary in dealing with typhlocolitis, abnormally mobile cecum, union in "canons de fusil" ptosis of the whole right ceco-colon or of the right flexure only, ileocecal tuberculosis, Lanes' kink, etc. One readily appreciates the futility in such conditions of attempting sane surgery through a neat "button-hole incision."

The pages devoted to clinical and radiological study are interestingly written and quite instructive.

Various conditions are illustrated by case reports and considerable space is given diagnosis and treatment. The book is illustrated with forty-one engravings.

In the reviewer's opinion it is an excellent volume and the diagnostician and abdominal surgeon who reads it will find, no doubt, that his time has been well spent.

E. H. GREENE, M.D.

TREATMENT OF PRURITUS ANI

KEITH C. RICE, M.D.

Atlanta

The purpose of this paper is to call attention to a very simple but useful method of dealing with pruritus, or painful itching, with special reference to pruritus ani.

In regard to the etiology of pruritus most writers on the subject are not agreed. Since this affection is a symptom rather than a disease, and its cause varies so widely in different cases it is readily understood why the etiology of pruritus ani is more obscure and more discussed than any other condition of the rectum and anus. There seems to be little doubt that pruritus ani is largely influenced by an inherited or acquired neurotic condition and that it may or may not be of parasitic origin. It may be demonstrated conclusively that it is frequently due directly or indirectly to: (a) local disease of the colon, rectum or anus, (b) improper diet, (c) cutaneous affections, (d) operations about the rectum and anus, (e) disease in neighboring organs, and (f) systemic diseases. Montague has emphasized the frequency with which pruritus is caused by pressure and inflammation of the pelvic organs producing reflex irritation of the sacro-anal nerves. Recent writers have been more inclined toward the systemic origin, foci of infection, etc. Others consider it a protein sensitiveness and are attempting to treat the condition by protein desensitization.

SYMPTOMS AND DIAGNOSIS

In pruritus ani the symptom which is more marked than all others is intense itching of the anus. This is increased by moisture, heat and contact of the buttocks, and is often so harassing that it is harder to endure than acute pain, and makes life almost unbearable. The itching grows worse at night after the patient becomes warm in bed. Few can resist the impulse to scratch the part, thus increasing the itching and causing excoriations, fissures and thickened skin. Pruritic subjects are nervous, irritable, discouraged, and melancholic, and many of them assert

that they will end their sufferings in suicide if relief is not soon obtained.

The skin about the anus undergoes a marked change in appearance—it becomes hypertrophied, indurated, roughened, and elongated, (extending from the anus in every direction) is constantly moist, dead white in color, glistening and parchment-like.

TREATMENT

It will not be necessary to enumerate here all the different methods of treatment of this disease. Treatment of the systemic condition and an attempt to locate the origin of the disease should, of course, be undertaken. Usually, however, the suffering of the patient must be relieved first. A glance at the long list of ointments and lotions given in the average text book will illustrate their inadequacy to relieve the situation. A more radical procedure must usually be resorted to.

The method of treatment I wish to emphasize is that devised by H. B. Stone. During my association with Dr. Stone in the hospital I have seen this method used in many cases with very satisfactory results.

Schlosser in 1903 recognized the destructive effect of alcohol on nerves and since this time it has been used extensively in the injection of nerves for various painful conditions.

In 1916 Stone, after experimenting on dogs, devised the plan of destroying the peripheral cutaneous nerves by subcutaneous injection of alcohol and since then has treated successfully over 100 cases of pruritus ani by this method.

The technic of the procedure is very simple. With the patient in the lithotomy position the area involved is prepared in the usual way with iodine and alcohol. Vertical injections are made just beneath the involved skin, as injections into the skin will cause sloughing. Not more than 2 or 3 minims in each puncture should be used. The alcohol should not be injected too deeply for fear of paralyzing the nerve supplying the sphincter ani, since alcohol also destroys motor fibers.

These injections may be made after a local anaesthetic of 1% novocaine but, due to the massive infiltration and dilution of the alcohol, when a local anaesthetic is used, general

anaesthesia with nitrous oxide is preferable in most cases.

The advantage of this procedure over other radical operative measures, such as the operation of Ball and total excision of the skin, is apparent. The method is quickly performed, no dressings are required, the stay in the hospital is short, the patient is more easily persuaded to this procedure than to an operation, and the results are as enduringly satisfactory.

In case of recurrence of symptoms after six months or more, the procedure may be repeated.

Complications of the procedure are never seen if the injections are made correctly. Sloughing and paralysis of the sphincter and the method of avoiding them have already been mentioned. One might conceive of embolism but to my knowledge this has never occurred. I saw one case of massive induration in which a surgeon had injected 0.5 c c instead of 2 minims in each puncture. Fortunately the skin did not slough, but the induration did not subside for six weeks after

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A HIGH FAT, RICH VITAMIN DIET IN ULCERS OF THE STOMACH AND DUODENUM: A PROTEST AGAINST ROUTINE DIETS

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Birmingham

The ulcer patient should have the benefit of what McCollum calls our "newer knowledge of nutrition." His diet should be adjusted to his particular needs, not only as related to the proper amounts and proportions of proteins, carbohydrates, fats and minerals, but its vitamin content should also be balanced. In ulcers of the stomach and duodenum a relatively high fat diet seems best to meet the indications for the treatment of the local pathological conditions, while food rich in vitamins will build up the general state of nutrition so that the ulcer will heal and the patient become more resistant to infections of the gastro-intestinal tract.

It manifestly is not advisable to give the plethoric ulcer patient weighing 200 pounds the same diet as the undernourished 100-pound individual. The nutritional needs of the patient who has had a recent hemorrhage differ from those of the person who voluntarily leaves his work for ulcer treatment. The adolescent ulcer patient needs a relatively higher protein diet than the adult over fifty. In many other respects the personal equation cannot be overlooked in dieting ulcer patients. These considerations seem to be lost sight of by most physicians in dieting their ulcer patients.

There are almost as many diets employed in treating ulcers of the stomach and duodenum as there are clinicians specializing in gastro-intestinal diseases. Most of the diets

which are used as a routine by the medical profession generally, are modifications of the Lenhartz diet, though they are given the names of various men who have popularized them. It seems to be the usual thing to try to make a diet fit all ulcer patients, instead of preparing daily menus to suit the nutritional needs of each individual case. In other words, it appears to be the rule that when a physician makes a diagnosis of ulcer, he gives his patient some one of the diets as published in text-books without considering the patient's age, weight and general condition, or even the variable pathological states of the ulcer-bearing stomach or duodenum.

FAULTY ROUTINE DIETS

In giving these routine diets no thought seems to be given as to whether the patient is receiving an excess, or a deficiency, of protein, carbohydrates and fats; and no regard is given to the vitamin content of food. These routine diets that are given indiscriminately to ulcer patients are not always harmful immediately, though the Sippy (1) diet for the first week contains a dangerously high ratio of fats to carbohydrates. Most of them, after the second week, contain an excess of proteins and carbohydrates and a deficiency of vitamins B and C; hence untoward remote results may occur from their prolonged use. The least criticism that can be made of the practice of routine dieting in ulcer is that it is unscientific. It is almost as important that the diet in gastric and duodenal ulcers should be arranged to meet each individual patient's needs as it is in preparing the daily menus for diabetics.

It must be admitted, however, that many ulcer patients will get well clinically on any one of the ulcer diets provided he rests in bed for three or four weeks. It is also unquestionably true that many ulcers heal spon-

*Read before the Medical Association of Georgia, Albany, Ga., May 14, 1926. Invited guest.

taneously without any effort at dieting, or at least heal to the extent that there are remissions of symptoms for weeks and months at a time. Nevertheless, a larger percentage of permanent cures of ulcer result when scientific methods are instituted for preparing daily menus suited to the nutritional needs of each individual patient.

SMALL FREQUENT FEEDINGS FOR FIRST WEEK

Partial physiological rest to the stomach activities and complete physical rest for the patient is indicated in the first two or three weeks in the treatment of ulcer. Lenhartz (2) advised half-ounce feedings of an egg and milk mixture every hour from 7:00 A.M. to 7:00 P.M., increasing the amount by half ounce each day until, in six days, hourly three-ounce feedings are given. We think it better to consider the patient's habitual hours for meals and the feedings should be begun and ended about the time for his morning and evening meals, provided his hours for eating do not need regulating. Eight o'clock being the average we usually begin the feedings at that hour and end them at seven in the evening. If the patient's vocation requires him to begin work early, the first feeding is at 6:00 or 7:00 A.M. and the last ten hours later.

The so-called "abstinence cure" formerly used by Ewald (3) and its modifications by Von Luebe and others, called for a period of absolute rest to the stomach varying from three or four days to two weeks, while an attempt was made to nourish the patient by nutrient enemata. It has been definitely proved that the fasting stomach is not at rest if enemata are given, and only a few hundred calories at most can be obtained from rectal alimentation with predigested egg and milk mixtures. Aside from the fact that feeding by rectum does not properly nourish the ulcer patient, few persons are willing to submit to treatment if they are told that they have to abstain from food by mouth for a few days. The small frequent feedings advocated by Lenhartz are more agreeable to the patient and promote healing by building up nutrition; and it is probable that they provide as much food as can be digested and assimilated.

More recently Coleman (4) advocated a period of three to five days fasting for the stomach while he nourishes the patient with glucose enemata. Throughout his treatment Coleman gives daily feedings per rectum of 90 to 100 grams of glucose, the only food which he gives by mouth being egg-white and olive oil or cream. Undoubtedly a sufficient amount of carbohydrate may be absorbed from the colon for the patient's glucose needs, provided conditions are favorable; but many patients cannot retain nutrient enemata, and one cannot estimate with any degree of accuracy the amount of carbohydrate absorbed from the colon. Coleman's diet is also deficient in Vitamins B and C and in calcium, iron, and other minerals needed for perfect nutrition.

Some of the modifications of the Lenhartz diet, notably that of Sippy, begin with three ounces of food every hour. This would seem to overload the stomach, which accounts for the need of using the tube for aspirating the stomach contents during the night. Beginning with half-ounce hourly feedings for ten hours and increasing the quantity by half ounce each day, with a maximum of three ounces in six days, it is rarely necessary to employ the stomach tube at night, as is the practice in the Sippy treatment.

THE USE OF FATS TO PROTECT THE ULCER

Lenhartz gave a high protein diet to "bind" the acid secreted by the stomach on the theory that it prevented the irritating effect of the gastric hyperacidity upon the ulcer. Rehfuess has demonstrated that proteins do not bind the free hydrochloric acid in the stomach but, on the contrary, his highest acid readings were after feeding proteins. It, therefore, would seem that Lenhartz's high protein diet in ulcer was based upon a mistaken conception of gastric function. Rehfuess' observations also seem to prove that the time-honored custom of prescribing meats, eggs, and other food of high protein content, in gastric hyperacidity, should be abandoned.

In my original modification of the Lenhartz diet, first employed in 1906, Conheim's theory of a deficiency of gastric mucus in ulcer was considered; and cream was added

to the Lenhartz formula with the idea of keeping the ulcer coated with milk fat, thus protecting it from the irritating effects of the excess of hydrochloric acid usually present in the stomach contents of the ulcer patient. Conheim gave olive oil to ulcer patients, claiming that it promoted healing of the ulcer by protecting the exposed nerve terminals in the open ulcer. It seemed to me that milk fat would have the same effect.

Some patients objected to the raw egg mixed with the milk and cream mixture in our modifications of the Lenhartz diet; and for the past few years we have been omitting the egg. We find that the higher fat diet relieve the pain better than when the first few days' feedings contained eggs, and that the patient makes more rapid clinical recovery. In 1906 we knew nothing about vitamins but it is known now that milk fat is rich in vitamin A, while there are no vitamins in olive oil. The addition of the cream to the milk, therefore, not only adds to the palatability of the food formula, but is soothing to the ulcer and increases the general nutrition of the patient.

THE LOW CARBOHYDRATE DIET IN ULCER

Deeks (5) in 1904, expressed the opinion that a diet excessive in sugars is the most important etiological factor in ulcer, hyperchlorhydria and other gastric disorders. He, therefore, gave his patients a low carbohydrate diet and reported excellent results. Whether or not Deeks is right in his theory, all authorities on nutrition agree that the average American diet contains a great excess of carbohydrates; and since most patients develop ulcer on a diet rich in bread, sweets, rice and potatoes, it would seem advisable to change their eating habits. We, therefore, have followed the suggestion of Deeks in using a low carbohydrate diet in treating ulcer; and believe that we have been getting better results since adopting that method.

In giving a low carbohydrate and relatively high fat diet in ulcer it should be remembered that "fats burn in the fire of the carbohydrates"; and the ketogenic-anti-ketogenic ratio of Woodyatt, i. e., 1 of carbohydrate to 1.5 of fats (in grams) should be considered

in dieting any individual. A higher proportion of fats may result in a mild acidosis, particularly if there is impairment of the islet function of the pancreas, which on account of the anatomical relations of the pancreas to the stomach and duodenum, probably is not infrequent in ulcers of the stomach and duodenum. The proportion of one-third carbohydrates to two-thirds fats by calories as used by us is not nearly so high a fat diet as the Marsh Newberger diet in diabetes. When translated into grams the ketogenic-anti-ketogenic ratio in our diets averages at least 1.5 of carbohydrates to 1 of fat. The Sippy (6) diet for the first week, i. e., one and one-half ounces of cream and one and one-half ounces of milk every hour for thirteen feedings a day, would give 199 grams (1791 calories) fat, 24 grams (64 calories) carbohydrate and 17.5 grams (70 calories) protein, a ketogenic-anti-ketogenic ratio of about 1 to 4. This is entirely too much fat to give in one day; too high a ratio of fat for even a normal person and a dangerously high fat diet for an individual with a damaged pancreas. We recently have had two cases of ulcer of the stomach in which the urine showed a high degree of acetone and diacetic acid when the patients were consuming about one-fourth the amount of fat as in the first few days of the Sippy diet. It is probable that a high degree of acidosis would have followed in these patients had they received the routine Sippy diet for the first week.

PROTEINS

It would seem rational in dieting ulcer patients to give no more protein than is needed for daily nutrition. Chittenden's experiments seem to show that the normal adult needs only about one-tenth of his total amount of food, expressed in calories, in proteins. Others, particularly the Germans, think a higher proportion is necessary, some ranging as high as one-seventh. It is generally agreed, however, among nutrition experts, that the average well-nourished person needs no more than 75 grams (300 calories) of protein a day. In estimating our diets for ulcer patients we give the average person over fifty years of age, 60 grams of protein

daily, while young, vigorous adults are given 75 to 80 gams. While ulcer is rare in adolescence it does occur under twenty and, if so, 100 or more grams of protein may be given a day. After hemorrhage, or if the patient is anaemic, it is advisable to give 100 or even 120 grams of protein a day. The Lenhartz ulcer diet containing 120 grams of protein a day was originally intended for use after hemorrhage and the results were so good that it was used by him and others routinely for all ulcer patients. In dieting the ulcer patient after a hemorrhage, we use the "Seale Harris modification of the Lenhartz diet" adjusted to meet the caloric needs of the individual under treatment.

DIET FOR THE FIRST TWO WEEKS

We began the diet of ulcer patients by giving on the first day, one-half ounce (15 cc) of milk (two-thirds) and cream (one-third) mixture, and increase one-half ounce each day until in six days three ounces are given every hour from 8:00 A.M. to 7:00 P.M. The proportion of two parts of milk to one of cream is maintained in all the feedings for the first two weeks. One-half ounce of strained orange juice is given at 9:00 P.M. increasing the amount by one-half ounce each day until, in six days, three ounces are given.

From the seventh to tenth day, the diet is still under the basal requirement. The three-ounce feedings are given every two hours instead of at hourly intervals with the addition of four tablespoonfuls of strained oatmeal or one half shredded wheat biscuit, or a thin slice of whole wheat bread dry toast for breakfast and supper and one ounce scraped beef and one thin slice of white wheat bread dry toast for dinner.

From the eleventh to the fourteenth day, the diet is increased by giving a soft cooked egg for breakfast and supper and increasing the scraped beef to two ounces or substituting minced breast of chicken for dinner.

BASAL DIET DURING THIRD WEEK

Beginning the third week and so long as the patient is in bed, he is given his basal diet, unless he is underweight, then the amount of milk and cream is increased; or if he is overweight, then the amount of milk and cream is reduced so that his own fat will

be burned. If he is anemic the proteins are increased.

The basal diet in calories is calculated by multiplying the bodyweight in kilograms by 25, the number of calories needed daily per kilogram of body-weight while the patient is at rest in bed. Thus the ulcer patient weighing 154 pounds (70 kilograms) would require 1,750 calories a day. Of this, 60 grams (240) calories should be of protein and the remainder (1,510) should be divided into one-third (504) calories, carbohydrate and two-thirds (1,006 calories) of fats; or translated into grams, 128 grams of carbohydrate and 111.6 of fats.

If an increase in carbohydrates is desired it is easily made by adding to the basal diet enough milk, sugar or bread to make up the required number of grams. If the fat requirement is higher or lower than the basal diet, the cream or butter is increased or reduced; and if there is anemia, enough scraped beef or cheese is added to meet the estimated amount of protein for the patient's daily needs.

OPTIMAL DIET AFTER THIRD WEEK

Beginning when the ulcer patient has completed his three weeks' rest in bed his optimal diet should be given, i. e., the amount needed to maintain his strength and his normal weight while attending to his daily duties. The amount needed depends upon the amount of physical exertion performed in the day. It is estimated that the average business man or professional man, or the housewife, requires about 35 calories per kilogram of body-weight. Thus the optimal diet for the adult of average height and weight, 154 pounds (70 kilograms) would be 70 times 35—2,450 calories. Of this, 10 per cent, 245 calories (61 grams), should be proteins and of the remaining 2,205 calories, one-third, 735 calories (183.5 grams) is carbohydrate and two-thirds, 1,470 calories (163.3 grams) in fats.

The laborer employed in hard work will require about 50 calories per kilogram per day. Thus the brick-layer or the farmer or the golfer who plays eighteen holes a day will need about 3,500 calories, divided as follows: 10 per cent, 350 calories (87.5 grams) protein and of the remaining 3,150 calories, one-third,

1,050 calories (262.5 grams) in carbohydrates and 2,100 calories (233.3 grams) fat.

The ulcer patient's optimal diet should be continued for a year or more. It is not necessary for him to weigh and measure his food as may be done if he is in a hospital, but during the fourth week of treatment he may be taught to estimate his diet so that he may order a meal in a restaurant or at home, containing approximately the proper amounts of proteins, carbohydrates, and fats. It is not possible even when food is weighed and measured to tell exactly the number of calories of protein, carbohydrates, and fats that some items contain; and since the organs concerned with digestion and nutrition normally have a wide range in function an error of 300 or 400 calories, a day is not of moment.

The ulcer patient should weigh himself once a week. If he gains above his normal weight, cream and butter should be reduced; or if he is losing on his calculated optimal diet, a condition of infrequent occurrence, the diet may be increased until he is up to standard weight.

VITAMINS A AND B

The recent advances in the study of nutrition have brought out some amazing facts which should be applied in the treatment of ulcer. Without going into a discussion of the proven facts regarding vitamins, it is an accepted conclusion by nutrition experts that vitamin A protects against respiratory and eye infections, and that it stimulates nutrition generally.

It would, therefore, seem that in dieting an ulcer patient the general nutrition of the patient should be considered and that his diet should be rich in vitamin A. Milk fat (cream, milk and butter) is the best source of vitamin A, though the green vegetables which should make up an important part of an ulcer diet after the first week are rich in this protective food.

No one doubts that the anti-neuritic vitamin protects against beriberi; and McCollum thinks that there are hundreds of thousands of border-line cases of nervous maladies that occur because of a deficiency of vitamin B in the diet of the average American. The neurotic element, as a predisposing factor in the etiology of ulcer is accepted by many gastro-

enterologists; and since vitamin B is essential for perfect nutrition of the nervous system, whole wheat bread, vegetables and fruits, important sources of vitamin B, should be part of the diet of ulcer patients.

The removal of the adrenals in animals is frequently followed by the development of duodenal ulcer. It is known that in fatigue there is a deficiency of adrenal secretion and the injection of adrenalin relieves fatigue. McCarrison is of the opinion that vitamin B is necessary for proper adrenal function. There is also evidence suggesting that a deficiency of vitamins affects thyroid and other internal secretions. It therefore seems that since the general use of white flour, white meal, white rice, and white sugar are all devoid of vitamins, a deficiency of vitamin B in the average diet may have something to do with the apparent increase of duodenal ulcer during the last few decades.

VITAMIN C PROTECTS AGAINST ABDOMINAL INFECTION

The anti-scorbutic vitamin C, seems not only to protect against the disease known as scurvy, but against infections of the entire intestinal tract. McCarrison, a British Army surgeon, stationed in a remote region of the Himalayas, observed that the natives, though they are ignorant and live under most unsanitary conditions, rarely had gastro-intestinal or other abdominal infections. In a surgical practice of more than 400 major operations a year for nine years, he did not observe a case of gastric or duodenal ulcer, of appendicitis, gall-bladder or other infection of the abdominal viscera. He studied the eating habits of the natives and came to the conclusion that the "natural" foods on which they lived protected them against abdominal infections. He made experiments on monkeys, feeding them on autoclaved white rice. Practically all of them developed gastro-intestinal infections, while the control monkeys fed on milk, fruits, nuts and leafy vegetables, remained healthy.

It is an accepted fact that the exciting cause of peptic ulcer is an infection, though the predisposing cause is not always apparent. McCarrison's observations suggest that lowered resistance from a diet deficient in vita-

mins is an important factor in the etiology of peptic ulcers and other abdominal diseases in which infection plays a part. It, therefore, would seem advisable for the ulcer patient to have a diet rich in vitamin C, with the view not only of aiding in healing the ulcer but also to keep him, as nearly as possible, in a state of perfect nutrition to prevent recurrences of the infection.

Fruit and raw vegetables are the best sources of vitamin C; and since it has been proven that they do not increase gastric acidity, there is no reason why strained orange juice, or strained tomato juice, or the strained juice of other uncooked fruit and vegetables should not be begun early in the diet of the ulcer patients. Patients always like orange juice, it rarely disagrees, and there is no reason why it may not be given on the first day of treatment of ulcer cases. The first six days, we give one feeding at 9:00 P.M. of the same quantity, from one-half to three ounces, of orange juice with the milk and cream mixture. After the first week, orange juice, three ounces, is given with breakfast, and three ounces strained tomato juice with the evening meal. Since the heat necessary for canning tomatoes does not destroy vitamin C, if fresh tomatoes are not available the strained juice from canned tomatoes may be used. Some patients do not like tomato juice, but when told that it is both food and medicine, they take it and soon cultivate the taste for it. It is sometimes necessary to prove to the patient that the old idea of acid fruits and acid vegetables being incompatible with milk is a fallacy; but a few feedings of orange or tomato juice with meals made up largely of milk and cream, soon convince them that there is no such incompatibility.

DIET FOR THE AVERAGE ULCER PATIENT WEIGHING 154 POUNDS (70 KILOGRAMS)

It is not possible to prepare a diet suitable for all ulcer patients; but it is practicable to construct daily menus for the average ulcer patient, which may be modified, if necessary, to meet the varying nutritional needs of the individual under treatment. We use the diets outlined in the tables for the average ulcer case. It is so constructed that it may easily be changed, increasing or decreasing the

amounts of carbohydrates, proteins and fats to meet the estimated requirements in any given case.

DIET AFTER SIX WEEKS

After the sixth week and for a year thereafter the ulcer patient should be kept on his optimal diet. It should be bland and soothing and also rich in vitamins to protect against future infections. During the four or six weeks he is under the direct observation of his physician he can be taught what he may eat and what are the forbidden foods. He also should learn the amounts of protein, carbohydrates, and fats that he will need to maintain his normal weight and efficiency. We find it easy to teach food values to persons of average intelligence. They soon learn, without weighing or measuring their food, to estimate with reasonable accuracy the quantities of the various food in portions of 50 and 100 calories. They learn in a few days about the proportions of protein, carbohydrates, and fats in the things which they eat, as well as the vitamin content of various foods. Instead of it being a burden to estimate food values at meals, it adds to the interest and enjoyment of eating for one to have a working knowledge of the principles of diet and nutrition.

THE PERSONAL HYGIENE OF RECOVERED ULCER PATIENTS

The ulcer patient while undergoing treatment should be taught good eating habits. He should be shown the necessity of thorough mastication and that the use of peppers, spices and condiments is an acquired and wholly unnecessary habit which the ulcer patient should avoid. Hot biscuit, fresh rolls, and corn bread with tough crust, fried foods, pies, pastries, cakes and syrup should be eliminated from the dietary of the ulcer patient. Likewise tough meats, green corn, strawberries and other berries; fruits with tough skins and vegetables with woody fibre, like old okra, and asparagus should be taboo. Coffee, tea, caffeine beverages, wines, beer, whiskey or other alcoholics, since they increase the gastric acidity, should not be used by the recovered ulcer patient. Tobacco should also be interdicted.

(Continued on page 272)

TABLE I
FIRST, SECOND AND THIRD DAY

Amount				Food Value				Vitamins		
gms. oz. tbsp.				ch.	prot.	fats	cals.	A	B	C
FIRST DAY										
7:30 A.M.										
15	½	1	Strained orange juice	1.7	0	0	— 0	0	xxx	xxx
	½	1	Every hour from 8:00 A.M. to 6:00 P.M. ½ oz. mixture of 2½ oz. cream to 4 oz. milk—11 feedings	6.6	6.6	23.1	—	xxxx	xxx	xx
8:00 P.M.										
15	½	1	Strained orange juice	1.7	0	0	— 0	0	xxx	xxxx
Total for first day				10.0	6.6	23.1	274			
SECOND DAY										
7:30 A.M.										
30	1	2	Strained orange juice	3.4	0	0	— 0	0	xx	xxxx
30	1	2	Every hour from 8:00 A.M. to 6:00 P.M. give 1 oz. of a mixture of 4 oz. cream and 7 oz. milk—11 feedings	13.6	11.9	43.7	—	xxxx	xxx	xx
8:00 P.M.										
30	1	2	Strained orange juice	3.4	0	0	— 0	0	xx	xxxx
Total for second day				20.4	11.9	43.7	523			
THIRD DAY										
7:30 A.M.										
45	1½	3	Strained orange juice	5.1	.4	.1	— 0	0	xx	xxxx
45	1½	3	Every hour from 8:00 A.M. to 6:00 P.M. (inc.) 1½ oz. of a mixture of 5½ oz. of 30 per cent cream and 11 oz. milk	20.9	18.2	61.6	—	xxxx	xxx	xx
8:00 P.M.										
45	1½	3	Strained orange juice	5.1	.4	.1	— 0	0	xx	xxxx
Total for third day				31.1	19.0	61.8	757			

TABLE II
FOURTH, FIFTH AND SIXTH DAY

Amount				Food Value				Vitamins		
gms.	oz.	tbsp.	FOOD	ch.	prot.	fats	cal.	A	B	C
FOURTH DAY										
60	2	4	Every hour from 8:00 A.M. to 7:00 P.M. (inc.) 2 oz. of a mixture of 8 oz. of 30 per cent cream and 16 oz. of whole milk—total for 12 feedings.....	28.0	25.2	87.8	—	xxx	xxx	xx
			9:00 P.M.							
60	2	4	Strained orange juice.....	7.0	.5	.1	—	0	xxx	xxxx
Total for fourth day.....				35.0	25.7	87.9	1034			
FIFTH DAY										
75	2½	5	Every hour from 8:00 A.M. to 7:00 P.M. (inc.) 2½ oz. of a mixture of 10 oz. of 30 per cent cream and 20 oz. of whole milk—total for 12 feedings.....	25.1	27.3	114.0	—	xxx	xxx	xx
			9:00 P.M.							
75	2½	5	Strained orange juice.....	8.7	.6	.2	—	0	xxx	xxxx
Total for fifth day.....				33.8	27.9	114.2	1275			
SIXTH DAY										
90	3	6	Every hour from 8:00 A.M. to 7:00 P.M. (inc.) 3 oz. of a mixture of 12 oz. of 30 per cent cream and 24 oz. of whole milk—total for 12 feedings.....	42.2	32.8	136.8	—	xxx	xxx	xx
			9:00 P.M.							
30	3	6	Strained orange juice.....	10.4	.7	.2	—	0	xxx	xxxx
Total for sixth day.....				52.6	33.5	137.0	1577			

TABLE III
SEVENTH, EIGHTH, NINTH AND TENTH DAY

Amount				Food Value				Vitamins		
gms.	oz.	tblsp.	FOOD	ch.	prot.	fats	cals.	A	B	C
SEVENTH DAY										
8:00 A.M.—Breakfast.										
90	3	6	Strained orange juice.....	10.4	.7	.2	—	0	xxx	xxxx
90	3	6	Strained oatmeal or ½ shredded wheat biscuit toasted or							
20	(1 thin slice)		Dry toast of whole wheat bread	10.0	1.8	.1	—	0	0	0
90	3	6	Cold or hot milk.....	4.3	2.7	3.6	—	xxx	xxx	xx
60	2	4	30 per cent cream.....	1.3	1.5	18.0	—	xxx	xx	?
			1 soft boiled egg.....	0	6.0	6.0	—	xxxx	xx	0
10:00 and 11:00 A.M.										
90	3	6	3 oz. of a mixture of 2 oz. of 30 per cent cream, 4 oz. of whole milk—total for 2 feedings.....	7.1	5.5	22.8	—	xxx	xxx	xx
1:00 P.M.—Dinner.										
25	1 (1 large)		Scraped beef, lightly broiled (1 round tblsp.).....	0	5.4	1.0	—	x	x	x
90	3		Whole milk	4.3	2.7	3.6	—	xxx	xxx	xx
30	(1 slice)		Whole wheat bread, toasted.....	13.3	2.9	.3	—	xx	xxx	0
3:00 and 5:00 P.M.										
90	3	6	3 oz. of a mixture of 2 oz. of 30 per cent cream and 4 oz. of whole milk—total for 2 feedings.....	7.1	5.5	22.8	—	xxx	xxx	xx
7:00 P.M.—Supper.										
90	3	6	Strained orange juice.....	10.4	.7	.2	—	0	xxx	xxxx
90	3	6	Strained oatmeal or ½ shredded wheat biscuit toasted, or							
20	(1 thin slice)		Dry toast of whole wheat bread	10.0	1.8	.1	—	0	0	0
90	3	6	Cold or hot milk.....	4.3	2.7	3.6	—	xxx	xxx	xx
60	2	4	30 per cent cream.....	1.3	1.5	18.0	—	xxx	x	?
			1 soft boiled egg.....	0	6.0	6.0	—	xxxx	xx	0
Total				83.8	47.4	106.3	1482			

TABLE IV

ELEVENTH, TWELFTH, THIRTEENTH AND FOURTEENTH DAYS

Amount		Food Value				Vitamins		
gms. oz. tbsp.	FOOD	ch.	prot.	fats	cals.	A	B	C
8:00 A.M.—Breakfast.								
	1 soft boiled egg	0	6.0	6.0	—	xxxx	xx	0
30	(1 thin slice) Whole bread bread, toasted ..	14.5	2.9	.3	—	xx	xxx	0
10	(1 pat) Butter	0	.1	8.5	—	xxxx	0	0
90	3 6 Orange juice (strained)	10.4	.7	.2	—	0	xxx	xxxx
90	3 6 Strained oatmeal or ½ shredded wheat biscuit or 1 thin slice whole wheat bread (20 gms.) ..	10.0	1.8	.1	—	xx	xxx	0
30	1 2 Cream, 30 per cent. ....	.6	.8	9.0	—	xxx	x	?
9:00 A.M.								
45	1½ 3 Cream, 30 per cent. ....	.9	1.1	13.5	—	xxx	x	?
120	4 8 Whole milk	5.8	4.0	4.8	—	xxx	xxx	xx
11:00 A.M.								
45	1½ 3 Cream, 30 per cent. ....	.9	1.1	13.5	—	xxx	x	?
120	4 8 Whole milk	5.8	4.0	4.8	—	xxx	xxx	xx
1:00 P.M.—Dinner								
50	2 (2 large) Scraped beef or minced breast of chicken	0	10.0	3.0	—	x	x	x
30	(1 slice) Dry toast, whole wheat	13.3	2.9	.3	—	xx	xxx	0
10	(1 pat) Butter	0	.1	8.5	—	xxxx	0	0
60	2 (2 rounded) Ice cream	11.8	2.3	8.2	—	xxx	xxx	xx
3:00 P.M.								
45	1½ 3 Cream, 30 per cent. ....	.9	1.1	13.5	—	xxx	x	?
120	4 8 Whole milk	5.8	4.0	4.8	—	xxx	xxx	xx
5:00 P.M.								
45	1½ 3 Cream, 30 per cent. ....	.9	1.1	13.5	—	xxx	x	?
120	4 8 Whole milk	5.8	4.0	4.8	—	xxx	xxx	xx
7:00 P.M.—Supper.								
	1 soft boiled egg	0	6.0	6.0	—	xxxx	xx	0
30	(1 slice) Whole wheat bread, toasted	13.3	2.9	.3	—	xx	xxx	0
10	(1 pat) Butter	0	.1	8.5	—	xxxx	0	0
90	3 6 Orange juice (strained)	10.4	.7	.2	—	0	xxx	xxxx
Total		111.1	57.7	131.1	1855			

TABLE V

FIFTEENTH, SIXTEENTH, SEVENTEENTH, EIGHTEENTH, NINETEENTH,
TWENTIETH AND TWENTY-FIRST DAYS

Amount			Food Value				Vitamins			
gms. oz. tbsp.			FOOD	ch.	prot.	fats	cal.	A	B	C
8:00 A.M.—Breakfast										
90	3	6	Strained orange juice or strained grapefruit juice (5 oz.)	10.4	.7	.2	—	0	xxx	xxxx
60	2	4	30 per cent cream	1.3	1.5	18.0	—	xxx	x	?
			1 soft boiled egg	0	6.0	6.0	—	xxxx	x	0
30	(1 slice)		Whole wheat bread, toasted	13.3	2.9	.3	—	xx	xxx	0
10	(1 pat)		Butter	0	.1	8.5	—	xxxx	0	0
120	4	8	Whole milk	5.8	4.0	4.8	—	xxx	xxx	xx
11:00 A.M.										
120	4	8	Whole milk	5.8	4.0	4.8	—	xxx	xxx	xx
1:00 P.M.—Dinner										
90	3	6	Strained tomato juice or							
120	4	8	Strained vegetable soup	4.0	0	0	—	xxx	xxx	xxx
100	4	(4 large)	Scraped beef or minced breast of chicken	0	20.0	6.0	—	x	x	x
60		2	Tender green vegetables as turnip greens, spinach, or string beans, etc. (mash)	4.0	2.0	.2	—	xxx	xxx	xxx
30	(1 slice)		Toast, whole wheat bread	13.3	2.9	.3	—	xx	xxx	0
20	(2 pats)		Butter	0	.2	17.0	—	xxxx	0	0
120	4	4 (rounded)	Ice cream, cup custard, boiled custard or gelatin	23.6	4.6	16.4	cream) ice)	xxx	xxx	xx
60	2	4	Cream, 30 per cent	1.3	1.5	18.0	—	xxx	x	?
6:00 P.M.										
120	4	8	Whole milk	5.8	4.0	4.8	—	xxx	xxx	xx
7:00 P.M.—Supper.										
120	4	8	Thick puree of peas or beans	8.0	4.0	0	—	x	xx	xxx
60		2	Tender green vegetables as turnip greens, spinach or string beans	4.0	2.0	.2	—	xxx	xxx	xxx
60	2	4	Cream, 30 per cent	1.3	1.5	18.0	—	xxx	xx	?
30	(1 slice)		Toasted whole wheat bread	13.3	2.9	.3	—	xx	xxx	0
20	(2 pats)		Butter	0	.2	17.0	—	xxxx	0	0
120	4		Whole milk	5.8	4.0	4.8	—	xxx	xxx	xx
90	3		Strained orange juice	10.4	.7	.2	—	0	xxx	xxxx
Total				131.4	69.7	145.8	2116			

TABLE VI
FOURTH, FIFTH AND SIXTH WEEKS

Amount			Food Values*					Vitamins		
gms.	oz.	tbasp.	FOOD	ch.	prot.	fats	calcs.	A	B	C
8:00 A.M.—Breakfast.										
90	3	6	Strained orange juice or.....	10.4	.7	.2	—	0	xxx	xxxx
90	3	6	Strained oatmeal or ½ shredded wheat biscuit	10.0	1.8	.1	—	0	0	0
90	3	6	Cream, 30 per cent.....	1.9	2.3	27.0	—	xxx	x	?
			1 egg soft boiled, poached or scrambled	—	6.0	6.0	—	xxxx	xx	0
30 (1 slice)			Dry toast, whole wheat bread...	13.3	2.9	.2	—	xx	xxx	0
10 (1 pat)			Butter	0	.1	8.5	—	xxxx	0	0
10:00 A.M.										
60	2	4	Cream, 30 per cent.....	1.3	1.5	18.0	—	xxx	x	0
120	4	8	Whole milk	5.8	4.0	4.8	—	xxx	xxx	xx
1:00 P.M.—Dinner.										
120	4	8	Strained tomato juice, clear broth or tomato broth, or strained vegetable soup	5.3	0	0	—	xxx	xxx	xxx
100	4 (4 large)		Scraped beef or minced chicken or lamb.....	0	20.0	6.0	—	x	x	x
90	3		Turnip greens, spinach or string beans, mashed through a sieve..	6.3	2.2	.3	—	xxx	xxx	xxx
30 (1 slice)			Dry toast, whole wheat bread...	13.3	2.9	.3	—	xx	xxx	0
20 (2 pats)			Butter	0	.2	17.0	—	xxxx	0	0
120	4	4 (rounded)	Ice cream, boiled custard, gelatin, watermelon or canteloupe juice	23.6	4.6	16.4	(ice cream)	xxx	xxx	xx
4:00 P.M.										
			Same as 10:00 A.M.....	7.8	5.2	22.8	—	xxx	xx	x
7:00 P.M.—Supper.										
120	4		Thick puree of peas or beans...	8.0	4.0	0	—	x	xx	xxx
90	3	6	Strained oatmeal or ½ shredded wheat biscuit	10.0	1.8	.1	—	0	0	0
90	3		Turnip greens, spinach or string beans mashed thru a sieve.....	6.3	2.2	.3	—	xxx	xxx	xxx
60	2	4	Cream, 30 per cent.....	1.3	1.5	18.0	—	xxx	x	?
60 (2 slices)			Toast, whole wheat bread.....	26.6	5.8	.6	—	xx	xxx	0
10 (1 pat)			Butter	0	.1	8.5	—	xxxx	0	0
120	4	8	Whole milk	5.8	4.0	4.8	—	xxx	xxx	xx
120	4	8	Strained orange juice.....	14.0	.9	.3	—	0	xxx	xxxx
Total				171.0	74.7	160.2	2424			

*Estimated optimal diet: ch. 180—Prot. 70— Fat 160—Calories 2450.

(Continued from page 265)

It is not enough to tell the ulcer patient in general terms of the foods which he should eat or which he must not take; he should be given a diet list with specific instructions regarding the portions of the various dishes for each meal. The patient should also be taught that perfect digestion depends not only on having the proper quantity and quality of food, but that many other factors as overwork, worry, fear, anger, grief and other emotional disturbances may predispose to ulcer. In other words, he should be taught personal hygiene particularly as applied to his individual case.

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GASTRIC CARCINOMA WITH REPORT OF THREE CASES OF APPARENT CURE*

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Atlanta

Review of the literature of Gastric Carcinoma for the last few years must surely impress one with three facts: (1) The prevalence of cancer of the stomach. (2) The difficulty experienced in making an early diagnosis. (3) The small per cent of cases in which radical operation is possible. C. H. Mayo states that one-third of the cancers in man, and more than one-fifth of the cancers in women, appear in the stomach. About 25% are still confined to the stomach when diagnosis has been made, but many of these are inoperable because of various things—location of tumor, age, or general debility of patient, complicating diseases, etc.

It seems discouraging that the organ which is most frequently attacked by cancer, should at the same time be the one in which it is hardest to detect anything wrong,

or to suspect malignancy. The mortality remains high, and probably will, until we devise some means of reaching these cases earlier, so that their one hope, radical surgery, may be successfully applied.

Cancer of the stomach may remain dormant and without symptoms for months, and unfortunately rarely presents a "classical picture", until the disease has developed too far for surgery to be employed, or until only palliative measures may be instituted.

Various early signs and diagnostic tests have been described. Schlesinger calls our attention to the fact that many cases, especially in old people, show a spasm of the upper one-third of the oesophagus as one of the earliest signs. In France, Raymond and his co-workers have described special cytolytic reactions, glycolysis, and the determination of autolytic products, as possible diagnostic tests, but these have not as yet, been sufficiently tried to recommend their universal adoption. Zweig reports eight cases developing in a pre-existing gastric achylia, and emphasizes their rapid growth, so that such cases must be carefully watched for malignant changes.

Dyspepsia, indigestion, emaciation, or anemia, appearing rather suddenly in an adult, without any suggestive previous history, puts us on the defensive. It is then the duty of the doctor to prove that the patient hasn't a cancer. Believe every such stomach guilty until it is definitely proven to be otherwise.

Macroscopic, or even occult blood, in the gastric contents, or stool, which persists under treatment, in a person of the cancer age, usually means cancer. Hayes says, "if it persists after four to six weeks of treatment, cancer is most probable."

If in addition to the blood, gastric stagnation is present, we are justified in making a tentative diagnosis of cancer, and advising an exploratory operation, regardless of the clinical, roentgenological, laboratory or other findings. Bennett, in an analysis of 300 cases, shows that an examination of an early morning gastric content in most cases will show stagnation and blood, in the presence of cancer. To aid in this test, he gives charcoal and milk the previous night.

*Read before the Eighth District Medical Society, Athens, Ga., August 12, 1925.

Is the absence of free HCL in the gastric contents necessary for one to diagnose cancer? No. Friedenwald and Bryan, in Baltimore, and Hartman, at Rochester, working independently, reached practically identical conclusions. By the usual Ewald test meal they found an acidity in about 80% of the cases, but when using the fractional analysis, the former found absence of free HCL in 52%, and the latter in less than 50%. On the other hand, absence of free HCL is a diagnostic help—as emphasized by Schultz, who was enabled by it, plus the presence of short rods (stagnation), to diagnose a very early case, which was operated and apparently has a good chance not to have a recurrence.

Tenderness in the epigastrium, not otherwise explainable, while not diagnostic, again puts us on the defense. If in addition, a tumor mass is palpable, at least an exploratory operation is justifiable.

Cardman has shown, and most writers agree, that a new growth in the stomach can be accurately and positively diagnosed by roentgenological examination in from 95 to 97% of the cases as soon as it causes symptoms. Christian in his "observations, largely pessimistic", does not think that many carcinomas of the stomach are diagnosed by the X-ray, which should not have already been diagnosed from the history, physical, and clinical findings. W. J. Mayo, on the other hand, says, "the early diagnosis of cancer of the stomach depends on the Roentgen examination." We believe that most authorities agree with Mayo, and an early and thorough X-ray examination should be made in all cases of suspected gastric malignancy.

The X-ray will, on the other hand, make mistakes. Operable carcinomas will at times be pronounced inoperable, and occasionally one will be missed entirely. It is essential, of course, that a thorough X-ray examination be made, both fluoroscopic and films, as the same stomach may present entirely different appearances with a variation of technique and thoroughness, as will be shown in case 3.

The question as to whether a cancer develops on an ulcer or not, seems to cause

much unwarranted agitation. Most admit that it is frequently impossible to make a differential diagnosis between an ulcer, and a cancer, or a cancerous ulcer or ulcerous cancer, without a very minute and searching microscopical examination. Practically, therefore, it makes little difference, as a radical operation must be performed before a definite diagnosis is made.

Theoretically, however, it presents an interesting point. The weight of evidence appears to be on the negative side. As MacCarty says, "no one should state positively that cancer arises in chronic gastric ulcer, until one experimentally produces chronic gastric ulcer, and produces cancer in the ulcer, and then shows that all the conditions of the experiments are comparable to the conditions which arise in human beings." Hammer states that 60% of gastric cancers arise in ulcers, but Dahl—Iversen speaking for the Scandinavians, and quoting Nielsen for the Danes, and Finsterer, Plant, Steden and Waitzfelder speaking for the Germans, and Jones, MacCarty, Ewing, and others in this country, while they admit existence and occurrence of carcinomatous ulcers, doubt their logical sequence. In any case, they think the percentage very low—5% or less. In this connection Steden's case of double primary gastric carcinoma and peptic ulcer, all three lesions being separate and distinct, is of unusual interest.

This brings us to the question of: When is an operation justifiable, even an exploration? In our opinion, many cases are entitled to an exploration which do not get one. In cases where there is definite evidence of metastasis, or where the general condition of the patient is poor, or where the X-rays show extensive involvement about the cardiac end, exploration is probably not commendable, but in practically all other cases it is, and the sooner the better. The mortality from simple exploration is exceedingly low. Therefore explore and if no radical operation is then possible, a palliative operation might be done.

Various so-called palliative operations have been recommended. Schonbauer, in a series of 432 cases, reports 387 operations,

and of these, 104 had explorations only, and these show a mortality of 10%, which is nearly 4 times as great as that shown at Rochester. He reported 22 jejunostomies, with mortality of 50% which, of itself, shows that they were used only on the worst cases. In this connection, Schuppel recommends that in cases of total extirpation of the stomach, a jejunostomy be performed to allow immediate post-operative feeding, and yet relieve the all too fragile oesophagical union of all unnecessary strain. He also advocates an entero-enterostomy to prevent duodenal regurgitation.

The most universally employed palliative operations, however, are the gastro-enterostomies, either anterior, or posterior. Sailer goes so far as to prefer these to the more radical operation, but we feel the bulk of the evidence is against him. Cases receiving permanent or more or less permanent benefit from these operations, evidently did not have cancer. Lion claims no case thus treated ever lives more than five years. Schonbaur, on the other hand, reports one living at the end of seven years.

The radical resection of the stomach is the operation of choice when possible—but, what determines whether or not it is possible?

The first consideration should be as to whether or not the growth has metastasied. If so, do a gastro-enterostomy, if there is obstruction or likelihood of one developing. The second consideration is as to whether or not the adhesions binding the stomach down can be released, especially over the head of the pancreas. Lund, in discussing Cheever's paper says, "if a stomach, with a growth, cannot be drawn outside of the wound, it cannot usually be successfully removed". With all these, must be read the general condition of the patient.

Of the radical operations we have, first, the so-called Billroth I, in which the duodenum is joined directly to the gastric opening, this having been partially closed. Objections to this are the leakage which frequently takes place at the Y, or junction of anastomosis with the closure line of the stomach, and the tension which is frequently

placed on the sutures, because of the distance between the two points to be united.

The Kocher method obviates the leakage referred to, by making an end to side anastomosis between the duodenum and posterior wall of the stomach, the opening in the latter having been closed.

In the Billroth II operation, both the ends of the duodenum and that of the stomach are closed, and a gastro-jejunostomy is performed. This takes but little longer than the next method, and allows us to better control the emptying of the stomach.

In the Polya operation the duodenum is closed, and an end to side anastomosis is made between the stomach and jejunum. If the loop of jejunum is brought up through the transverse mesocolon, and therefore behind the colon, it is a "posterior" Polya, and if in front, an "anterior". C. H. Mayo recommends the latter, because of the tendency of the colon to sag in the middle, and he also partially closes the gastric opening and makes the implantation isoperistaltically.

As is shown by C. H. Mayo, there is little difference in the mortalities from these various operations. In all of them the chief trouble is the mobilization of the lesser curvature, and this is the most important portion to be removed, because of the lymphatic drainage. A wonderfully graphic description of this procedure is to be found in W. J. Mayo's article, which is reprinted in the 1922 Mayo Clinics.

After all is said and done, what hope can we offer the patient? Can we promise him anything? Our answer is the affirmative. He has everything to gain, and not much, if even his life, to lose. He has no hope without operation, and with operation he may not only live many years, but may even be cured.

Many cases have been reported in the last few years who have lived more than three years.

At Rochester 37.6% had three year cures, and 25% five year cures. Finisterer reports three cases living 2½ to 3 years, and three living 5 to 5½ years. Cheever in one series, reports 13% living 5 years, and in his per-

sonal series of 12 cases, 25% showing 6 year cures. McMahon's case is still living over 5 years post-operative (personal communication). Basch reported two cases living 5 years, and one 10 years. Enriquez one for 10 years. W. J. Mayo in analyzing their cases for the past 5 years, reports 35 living 6 years; 27, 7 years; 18, 8 years; 10, 9 years; 7, 10 years; 5, 11 years; 3, 12 years; and 1, 15 years. Dunham's case, thoroughly verified as carcinoma, when reported was living 18 years post-operative, and we are informed, in a personal communication, that he is still living 20½ years post-operative, and shows no sign of recurrence.

We think that we can, in selected cases, feel optimistic as to the outcome, if operated early, and operation is followed by thorough X-ray treatment.

Conclusions:

1. Carcinoma of stomach is more prevalent than generally thought.
2. It does not always present a "classical picture".
3. Must diagnose and operate early in order to do the patient much good.
4. Earlier diagnosis of carcinoma should be made. To this end we should:
 - (a) Investigate more thoroughly all cases of indigestion, dyspepsia, or emaciation arising suddenly in an adult.
 - (b) Watch for persistent occult blood in gastric contents and stools.
 - (c) Not be misled by presence of free HCL.
 - (d) Have more X-ray studies made.
5. An exploratory operation is warranted in nearly all cases. It can do no harm, and we may find an operable tumor.
6. Choose the type of operation to be used according to the need of the case.
7. Employ post-operative X-ray therapy.

Case Reports

CASE 1. Male, 39 years old, referred to the author's father by Dr. DeLoach in 1912. At operation it was found that posterior surface of the anterior abdominal wall was involved, requiring excision of part of the posterior sheath of the rectus muscle. Unfortunately, no record can be found of the microscopic findings, so that this cannot be put forward as a proven case of cured car-

cinoma. The clinical and gross pathological findings warranted a diagnosis of cancer. Patient is living and well today.



Fig. 1 (Case I)
Bulky adenocarcinoma of stomach; non-ulcerating.

CASE II. Male, 62, first consulted author's father in August, 1920, complaining of indigestion, loss of weight and strength, pallor and anemia. He had been to many doctors and hospitals, and treated for "stomach trouble", syphilis, etc. He was referred to Dr. Geo. Niles, who made an X-ray study and reported an inoperable carcinoma. When the facts were presented to the patient, however, he insisted on an operation, as he felt he had nothing to lose and everything to gain. Accordingly on August 7, 1920, he was operated on. Free fluid was found in the peritoneal cavity. The pylorus was found to be normal. A tumor approximately 10 cm. in



Fig. 2 (Case II)
Low power. Showing atypical glandular structure and infiltration in submucosa.

diameter was found projecting from the anterior wall of the stomach near its cardiac end. The stomach was freed with difficulty, and resected, the entire lesser curvature be-

ing removed up to the oesophagus, and only a small portion of the fundus being left. A gastro-jejunosomy was performed, but because of the small piece of stomach remaining only a small opening could be made.

Pathological Diagnosis: Adeno-carcinoma (verified by two pathologists). Patient is living and well today, having gained from 97 pounds to 182¾ pounds. He claims never to have had indigestion since the operation. He can eat anything, but not in as great quantity as before the operation. We submit this as a definitely proven carcinoma of the stomach living more than five years post-operative.

In connection with this case we wish to express our appreciation and thanks to Dr. Everett Bishop, pathologist to the Steiner Memorial Hospital, who made the sections from which the photo-micrographs were made, and who wrote the titles for the illustrations.

CASE III. Female, age 62, referred to the author in July, 1923, complaining of loss of weight, diarrhoea, and anemia. Onset had been sudden, 10 months previously, when she started vomiting undigested food, but no macroscopic blood. At that time X-ray examination revealed what was supposed to

changed with intake of food and which was freely movable.

X-ray examination showed "a filling defect, rather constant, at the pylorus", which was interpreted as being an early carcinoma. Feces showed occult blood. Blood count: W. B. C. 5,800. Polys. 56%, R. B. C. 2,880,000, H. B. G. 65%.

Operation August 3, 1923.

About two-thirds of stomach, including all of lesser curvature resected according to Billroth II operation. Ten days post-operative wound was dressed and S. W. G. stitches removed. She had been running a temperature of 101 and a diarrhoea. W. B. C. 5,700, Polys. 75%. Thirteen days post-operative omentum found on abdomen when wound was dressed. She was taken immediately to operating room, and no adhesions had formed about the omentum, nor had the wound made any progress in healing in the upper half. Omentum was resected, and drain inserted and wound closed with through and through S. W. G., and a layer of chromic catgut No. 1. Patient ran another high fever for six days. S. W. G., stitches had cut so deeply into muscles and skin that they were removed on 11th day, and wide strips of adhesive used to approximate wound edges.

Patient has now gained 28 pounds, is no longer anaemic, eats anything she wants, and has no indigestion. She still has a "burning sensation" in her mouth, which she had for some time before her operation. There is no evidence of a recurrence.

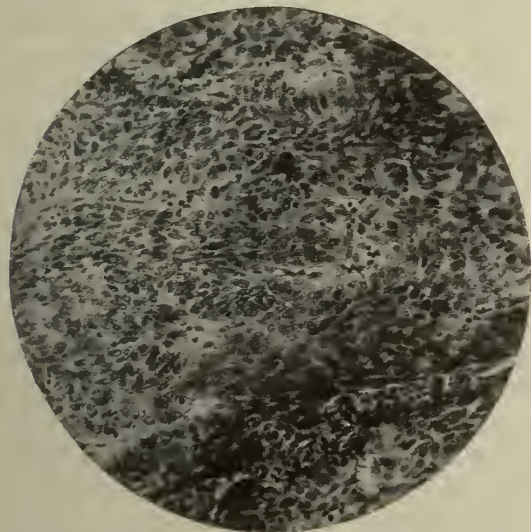


Fig. 3 (Case II)

High power. Atypical glands, lined by a more or less orderly cylindrical cells, with hyperchromatic nuclei. Diffuse growth of epithelium below.

be an inoperable cancer. Ten days later another Roentgenologist gave a negative report on a G. I. study. Six months before admission, nausea and vomiting ceased, and diarrhoea began, having at least three to four stools daily, never bloody or tarry. Examination showed a small, visible and palpable mass in the epigastrium, whose position

SUB-LUXATION FRACTURE OF THE DORSAL SPINE* CASE REPORT

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Brunswick

In presenting this paper it is not so much the purpose of the author to present any new or novel treatment and care of such injuries as it is to show how remarkably nature works to restore function sometimes in the gravest lesions, and without the usual procedures recommended in cases of like indications and almost similar character.

On December 26, 1923, the writer was called to the plant of the Atlantic Refinery where he found the patient, N. L. M., aged

*Read before the Eleventh District Medical Society.

23 at that time, had fallen backward from a platform over the crude stills at that plant, a distance of some twenty to twenty-five feet, striking on some coke below on his head, right shoulder and upper spine.

The patient was fully conscious, suffering but little pain, and that in his head and shoulder. He exhibited complete motor paralysis of the right leg from the trunk down; a partial paralysis of the left leg, affecting the flexor group of muscles mainly.

He was removed first to his home, with a provisional quick diagnosis of cursory examination for first aid, of spinal injury, the extent of which was not then determined by the appearance of any marked deformity in the alignment of the processes either laterally or antero-posteriorly. Soon after he was put to bed inability to void his urine and incontinence of his feces developed, and he was removed to the Brunswick Hospital for radiographing on the second day, after he had recovered from a delayed shock.

The X-ray showed that the lamina on the left of the eighth dorsal vertebra had been fractured, the body fractured just above the intervertebral articular surface, and that the spinous process was broken, and bent slightly out of line, accounting for the lack of marked deformity on quick inspection and palpation. There was also dislocation at the fracture, with the upper spine being displaced approximately half-inch or more toward the patient's left, with some rotation at point of fracture.

With the assistance of Dr. Dunwody and with general profound anesthesia, a reduction was undertaken by extension with an improvised Spanish windlass applied to a pelvic girdle while the upper trunk was fixed, plaster being applied, and the patient put to bed to await developments. No improvement being noted in his symptoms in two days, he was again removed to the operating room for an open operation and a possible laminectomy, as the patient began to show symptoms of almost complete paralysis of the parts supplied by the spinal nerves below the seat of injury.

On the operating table the spine was ex-

posed through the usual incision separating the muscles, etc. On inspecting the injury it was decided that some relief might be brought by again forcibly stretching the spinal column by means of fixation of the shoulders and head and pulling by means of the windlass on the lower portion, while manipulating the spine in the open wound in an effort to rotate it back into line, and remove any impinging bone from the cord or emerging nerves.

By carefully prying with heavy elevators, etc., using leverage against the spinous process of the ninth dorsal below, together with such manual manipulation as was possible and advisable, we succeeded in obtaining something like approximation and reduction. This was secured by firmly tying with bronze braided wire articular processes, spinous process below and lamina on the unfractured side above together, after carefully drilling the process of the ninth dorsal for the purpose. The tie exercised a diagonal pull that we imagined tended to correct the rotation and lateral displacement, as well as fixing the two vertebrae together over the fracture.

The wound was closed with drainage to allow the escape of the broken down clots of extravasated blood that we found in quite some profusion about the site of injury. The drains were removed in two or three days, and the wound closed by granulation in a short time.

The patient came into the hospital on the 29th of December, 1923, with complete paralysis of the right lower extremity, paralysis of the flexor groups in the left leg, unrecorded areas of anesthesia about both limbs and lower abdominal wall. He had, as stated, complete inability to empty the bladder, with no sensation of its distension at first, but within a few days suffering intensely as soon as there was only a moderate distension, showing returning sensory conduction, the pain being aggravated by an acquired cystitis and the irritation of the frequently demanded catheterization.

As already stated there was incontinence of feces involuntary and unappreciated. On January 13th he experienced the first defe-

cation sensation in the sphincter ani and called for the bed pan, though some days prior to that time he had suffered severely with gas pains in upper abdomen, which were relieved by the indicated enemata and colon tube.

On the same date—January 13th—his temperature, which had never exceeded 100.8 immediately following his operation, shot up to 104.4, preceded by a chill lasting twenty minutes. His left leg had begun to swell and pain him, and we found a phlebitis in that extremity to treat.

I should have mentioned that on the 12th he began complaining of pain also in the right lower limb, and on testing the sensation, it was discovered that practically all the anesthetic areas had become sensitive almost to the point of hyperesthesia. The motor reflexes were also beginning to be demonstrable in this limb, together with flexor muscle reflexes in the left limb.

Blood examinations were negative for malaria and Wasserman, but the differential count showed the septic factor in polys., etc. From this date on, he had gradually a better control of the bowel function, but still required catheterization of the urinary bladder until January 25th, when he voided with questionable control, never requiring the artificial emptying of his bladder after the 27th.

The temperature fluctuated on account of the complicating phlebitis and possibly pyelocystitis for about two weeks, returning to normal and remaining so, with very few exceptions afterward, on the 29th of January. The patient was propped on a back rest the 10th of February; sat up on the side of the bed with his own effort on the 12th of February, and was placed in a rolling chair. On the 18th of this month he walked a few steps with the attendant's support; on the 21st he tried out his new crutches in the room, and on the 23rd walked out of the hospital on them.

Of course, for quite a while he had a spastic gait, especially noticeable in the right foot, with extreme weakness especially of the extensor muscles, so much so that he was

obliged to get extreme hyperextension of the extremity at the knee joint (a sort of bowing back at this joint) in each leg before he essayed to transfer his weight to either leg.

Two months after his discharge from the hospital, however, I glimpsed him playing pool, standing on his formerly completely paralyzed leg alone, leaning over the table, and with his crutches parked in a corner of the pool room.

Completing the treatment of the case, I measured him and ordered a spinal corset brace, with steel pelvic band, connected to shoulder stirrups fitting around the axilla, and with steel strips running each side the spine, so padded and shaped that they would have the tendency to correct the slight kyphosis existing with some callus formation at the seat of injury, instead of possibly preserving it as might have been the case with one fitted from a plaster cast of his spine and trunk, as the union seemed to be quite firm and practically self-supporting. This he now wears during the day, as far as I know, as he told me had some pain and grew tired more easily if he went without it long while standing.

The most interesting part of the case to me is the emergency and possibly experimental orthopedies I used in the treatment. I say experimental as practically all my first assistants and consultants predicted death for the boy in varying periods of time; one of them going so far as to inform his wife of the fatal prognosis without my consent. The young man himself never had the slightest idea of dying, and it was this strong determination, as well as the goodness of Providence, that brought him through to take another job at the plant.

During the first six weeks of his confinement to bed I had him stretched in spinal hyper-extension upon a special curved frame I had the plumber to build for me, in which was laced a strong canvas sheet with a padded hole cut for use of the bedpan and dressing of some bed sores he had gotten during the first week. This frame was suspended from the bed posts.

(Continued on page 289)

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Profession of Georgia.

65 Forrest Ave., Atlanta, Ga.

JULY, 1926

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Articles are accepted for publication on condition that they are contributed solely to this Journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Reprints should be ordered within 30 days after the appearance of an article, since all type will be destroyed at the end of that time.

Editorial Department

ATTENTION, PHYSICIANS OF GEORGIA

The Medical Association of Georgia—your own State Association—at its last annual meeting in Albany, May 14, unanimously adopted the following resolution, this resolution having been first unanimously adopted by the House of Delegates, and then by the Association at a general session. **Your Association has spoken.**

Whereas, the Southern Medical Association is second only to the American Medical Association in size of its membership and

Whereas, it is second to none in the advancement of scientific medicine in the South, and

Whereas, its membership from the Medical Association of Georgia, compared with those eligible for membership, is not as high as it should be, and

Whereas, it would be a distinct advantage to the Medical Association of Georgia to

have the next meeting of the Southern Medical Association in Georgia, therefore be it

Resolved that this House of Delegates recommend an appeal to our members to take an interest, both individually and collectively, in the forthcoming meeting in November so that we may make this the greatest meeting in the history of the organization, and be it further

Resolved that we ask and urge every member of the Medical Association of Georgia to enroll himself as a member of the Southern Medical Association.

To the Members of the Medical Association of Georgia:

Let us not forget that the Southern Medical Association meets with us this year. Except the A. M. A., this is the largest medical organization in America, and is a strictly Southern which makes it the most important to us of all other medical associations. It behooves every doctor in Georgia who is eligible to become a member of this organization, because the outstanding means of procuring knowledge in the practice of medicine is association with one's fellows. The one thing that is more valuable than receiving knowledge is giving it, and inner-association gives us the best opportunity to do both.

There are but few things that would do so much in the advancement of medicine in Georgia than for every eligible doctor in the State to become a member of both the State and Southern Medical Associations, and especially would this be true if the meetings were fully attended. The Southern Medical will be our guest this year and we will be inappreciative hosts if we do not meet them at the front door. This is our duty, viewing if from an unselfish standpoint, but when we consider that these guests are bringing gifts more valuable than the gold of Ophir we should certainly meet them with open arms.

There is nothing in the field of medicine that will not be presented at this convention of the best medical talent in the country. We must all be present to receive our share of the reward. It should be the aim of the medical profession of Georgia to make this

the greatest meeting in the history of the Southern Medical Association, and if each doctor in the State will do his duty such will be easily accomplished.

Fraternally,

E. C. THRASH, M.D.,

Chairman, Membership Committee. .

Atlanta, Georgia, June 22, 1926.

GEORGIA BAPTIST HOSPITAL

The Georgia Baptist Hospital is rapidly taking its place in the front rank of humanitarian service for the people of Georgia. Its aim is to be a truly great and efficient Christian "House of Healing." During the past twelve years Georgia Baptists, through the Staff and Hospital Service of this institution, have rendered free service worth more than three quarters of a million dollars to the sick and suffering poor of the state. The single purpose of this institution is "Service to humanity in the name and the spirit of the Christ." While it is open to receive pay patients, and every one who is able to pay should pay, yet its primary purpose, so long as it has a vacant bed and the money to pay the bills, is to serve those who are unable to help themselves or able to help themselves only in part.

The present capacity of this hospital is 100, beds and they are filled practically all the time. One day recently there were 128 people in bed and others on a waiting list. The reason for the popularity of this institution is the type of service which it has built up through its organization. Doctors and patients who appreciate service insist on patronizing this institution and the demand for accommodations is so great that the Hospital Commission has been forced to enlarge the institution.

There is now nearing completion the first unit of the new hospital plant, a beautiful, fireproof, steel and concrete structure of five stories and basement, with a bed capacity of 120, erected at a cost of over \$350,000, with additional plans for immediate enlargement totaling \$500,000. In the new building there will be provided complete hospital service consisting of four operating rooms with

every modern convenience that goes with the surgical suite, G. U. room, orthopedic room, an X-Ray department, a pathological laboratory, a drug department, up to date diet kitchen and service rooms and additional accommodations for 120 patients. Half of the present building will be given over to nurses' quarters, for which, it was originally built. Half will continue to be used for hospital purposes, affording one entire floor for the maternity department, one floor for medical patients and the third floor for convalescent and minor cases, thus nearly doubling the present capacity of the institution.

The Nurses' Training School of the Georgia Baptist Hospital enjoys a merited place in the front rank of such institutions. The Georgia Baptist Hospital was one of the first in this section to attain and maintain the A-1 standard prescribed by the American College of Surgeons and to maintain its school of nursing as an "accredited" school. It has consistently maintained this high standing before the State Examining Board and has often enjoyed the distinction of its students winning the highest honors. The nurses graduating from this institution, by virtue of their superb training and fine standing, are making for themselves a large place in the field of their chosen work.

The Hospital Commission consists of Dr. Chas. W. Daniel, Col. A. J. Orme, Mr. W. B. Willingham, Sr., and Arch C. Cree of Atlanta, and Mr. J. P. Nichols of Griffin, Ga.

The general superintendent of the hospital is Arch C. Cree, M.A., Th.D., LL.D.; the resident superintendent, Eugene B. Elder, M.D., and the superintendent of nurses Miss Lucie Jesse, R.N.

RESPONSE OF DR. M. A. CLARK ON BEING PRESENTED WITH GIFT FROM ASSOCIATION*

Mr. President and Gentlemen of the Medical Association of Georgia:

Would that I had the command of language to express to you my appreciation of this beautiful gift.

*Delivered at the Annual Banquet, Albany, May 13, 1926.

Our language is a wonderful language. Founded upon the Anglo-Saxon, and borrowing from many other languages, especially the Greek and Latin, it affords a variety of ways for expressing our thoughts.

The most insidious and dangerous word in our language is the pronoun I. We should watch ourselves constantly lest this word enslave us. In my efforts to serve you, I have striven to remember the teaching of the Great Physician. "Whosoever would be chief among you, let him be your servant." To serve you has been a real joy, and this token of love, this evening, heartens me with the thought that the service has been well done.

The most impelling, and to me the most awful word in our language is duty. It has the same origin as due and debt, and carries with it a sense of responsibility. Duty was so thoroughly taught me in my boyhood that it has been easy to learn duty to our Association and a delight to fulfill that duty. Your thoughtful appreciation of my efforts has increased my responsibility to you and instilled within me a yearning to know and do my duty to the utmost. This gift of yours exemplifies a higher ideal of duty and incites me to greater efforts to measure up to that responsibility.

The Anglo-Saxon has given us the sweetest word of our language, mother. Last Sunday was "Mother's Day." May I be pardoned for thinking the two greatest mothers are my mother and the mother of my children? Mother's teaching, influence and love have helped to prepare me for the service rendered you and will be an inspiration to greater efforts in your behalf.

The most restful word in our language is home, from the same source as haven and heaven. What a haven of rest to the weary physician is home. It matters not what the estimate of the outside world may be, he knows when he enters his home, he is the greatest and best, and reigns supreme in the hearts of the homefolk. Your expression of love intensifies that feeling of worth. In the future when he goes home, there will meet the eyes this beautiful gift, and this sweet

reminder of your love will make him grow younger and the cares of life less onerous. His countenance will brighten and reflect a halo of contentment about the grey-haired physician, and a sweet peace will soothe the tired soul.

The greatest word in our language is love. "God is love." He has given us at least that much of Himself to encourage, inspire and deify us. This evidence of your great love dispels the wrinkles from the face, increases the luster of the eyes, makes the footsteps more elastic, and fills the heart with a song of joy.

I thank you from the depths of my heart.

THE OPPORTUNITIES AND RESPONSIBILITIES OF THE NURSE OF TODAY

By MISS JANE VANDEVREDE

Executive Secretary, Georgia State Association of Graduate Nurses

The following is an abstract of the principal address of the Graduating Exercises of the Piedmont Hospital School of Nursing, Class of 1926.

She referred to the advantages and opportunities of the present student nurse as doors that had been opened for her by others, nurses and doctors who had gone before. She mentioned the status in the general education and scientific field that nursing had secured; State Registration; professional solidarity of organization; all of these paralleling the steps already taken by the Medical profession for their groups.

She referred to the necessary classification of the schools of Medicine twenty-five years ago because the rank and file of doctors could not meet the challenges their leaders were disclosing. Now nursing is faced with a similar crisis. Only as the doctors met it can the nurses succeed in meeting it and because theirs is not an independent profession in its activities it must receive sympathy and support of doctors, hospital officials, and the public.

The process of grading the schools has already begun through a joint committee from these groups.

Another challenge to the nurse of today is the problem of serving more universally. The middle classes are not nursed. The common conclusion is that the nurse's charges are too great. This is not a wise answer. Comparisons of the financial returns of nursing with other professions are unfavorable to nursing. The average nurse earns between \$1500 and \$1800 per year. After ten or fifteen years her services are no more remunerative to her than during her first year of experience though they are of greater service to her patients and to the Medical profession.

Methods of organizing her services on an hourly or visiting basis have not been successful because the resident feature of her services predominates. The doctor depends upon her vigilant presence. She widens his professional margin and narrows her own.

The functions of the nurse are changing with the advent of other aids to diagnosis and treatment. Her first function, however, of comfort care to the sick; of nurturing the young will never change.

Her services should be reorganized and this should be begun in the training school. The progressive doctor, to secure nursing care for his sick, sees no way but to organize a school of nursing, not knowing, (because no books are kept to show it) the relative cost to him or to the patient of student nursing care.

If it could be plainly shown that student care of the patient under graduate supervision resulted in better care, would not the cost per diem be as readily met as it now is for an X-ray machine or a deep therapy machine because they are aids to the patient?

The highest service to the sick, a more universal service to the sick must be, after all, an individual responsibility.

Every one has his own conception of a nurse.

She made a plea that each new graduate should fully perform her part that it might be said of her:

"Steadfast she comes to cast her rose of youth,

Beneath the feet of Pain.

A rose, whose breath, eternal sweet with
woman's tender ruth,
Softened the shadows leading down to
death.

For with a sense of loss too fine to own
The nestward longing for the carrier dove,
She turneth from her first entitled throne
And all the household walks that women
love,

The gracious ministries of little deeds
And services of the few by love made sweet,
From these she turneth into wider needs
And pours her ointment on the stranger's
feet."

AMERICAN MEDICAL ASSOCIATION ONCE MORE: MEMBERSHIP- FELLOWSHIP

Every member in good standing in any constituent state medical association, whose name is reported to the secretary of the American Medical Association for enrollment, is a member of the American Medical Association. No member of the American Medical Association is called on, as such, to pay any dues or contribute financially to the Association.

Every member of the American Medical Association in good standing is eligible for Fellowship. To qualify as a Fellow, a member in good standing has only to make formal application for that relation and to subscribe for the Journal. Fellowship dues and subscription to the Journal are both included in the one annual payment of \$5, which is the cost of the Journal to subscribers who are not Fellows.

None but Fellows are eligible for election as officers; none but Fellows can serve as members of the House of Delegates; none but Fellows can register at the annual sessions of the Association or participate in the work of its scientific sections.

On June 1, 1926, there were 92,827 names on the membership roll, 60,021 of which were duly listed on the Fellowship roster.

Members of state medical associations pay dues to those bodies, but they pay nothing to the American Medical Association. Fel-

lows pay dues and subscription to the Journal in the sum of \$5 a year, which has nothing to do with county or state dues.

—BULLETIN.

A MESSAGE FROM OUR PRESIDENT*

V. O. HARVARD, M.D.

Arabi

Mr. President, and Members of the Fulton County Medical Society:

If I were to attempt to express to you the personal gratification I feel at being your guest, words would fail me; hence, I might as well compromise by saying from the bottom of my heart, "I am truly glad to be one of you at this society meeting, and enjoy the kind and generous fellowship that has been extended to me."

As an official visitor, I might say, representing the Medical Association of Georgia, "I am glad to be able to bring you glad tidings because of the very vigorous and healthy condition of that organization which we all love and delight to honor."

For more than three-quarters of a century the Medical Association of Georgia has exerted an influence for good in all that concerns the general welfare and progress of the practice of medicine in our beloved State, and at no time has that influence been more potent for good results than now.

For nearly a century the best and ablest minds in the profession have thought and labored to bring things to pass that would place the profession on a higher plane of usefulness that would make the work of the doctor less irksome, and at the same time more effective, and thus render better service to suffering humanity, which after all, is the end and aim of every true disciple of Esculapian.

In the long ago, when our noble ancestors, barred from the many privileges we now enjoy, bravely carved out their own course, and isolated by circumstances, often accomplished results that stir our hearts with pride and admiration, and inspire us not to forget

the fact that upon the proper functioning of our own minds, and the cunning of our own hands, largely depends whatever of success may crown our efforts.

But after all is said we must admit that it is in the practice of the spirit of co-operation and a broad spirit of helpfulness made possible by organization, that the most important and far-reaching results have been obtained.

In the early years of the Medical Association of Georgia it tried to travel alone, believing that the one organization was sufficient, but time and experience proved the contrary.

Failure to touch so many scattered throughout the state became painfully evident, and the necessity of small organizations that would tie on to the State or Mother body, and thereby interest scores and hundreds of practitioners to whom the State organization failed to appeal.

So much for the what "might be termed" the physical organization. The enlistment, so to speak, of a great volunteer army assembled for the most magnanimous and unselfish aims that ever inspired the hearts of true men.

What has been accomplished during all these years of toil? Informed as you all are upon current professional events, it would be an imposition to attempt to recount the many things that have been accomplished, and at the same time, that have been just as nobly expended, but so far have not been crowned with success.

Let us not be discouraged by these occasional miscarriages of a just recompense for our efforts, but draw consolation from the axiom that "It is better to have tried honorably and failed, than never to have tried at all."

Great deeds and accomplishments like great streams move slowly, and if we will but continue faithful in our efforts, and constant in our purposes, victory will yet sit upon our banners.

The Master of this great universe has promised that He will not leave us, nor forsake us, so long as we are engaged in an enterprise so high and noble as the practice of

*Address delivered before the Fulton County Medical Society, June 10, 1926.

medicine with men of such nobility of character and cleanness of hearts as marks the doctors of the State of Georgia.

I thank God that I am one of these and feel it a privilege to contribute my mite of endeavor to carry the great aims of the Medical Association of Georgia to a glorious consummation.

Our state organization, with all of its supporting bodies, stands for all that is best in human character and strives to develop that.

It stands for the exemplification of ethics in the highest degree, which, after all, is epitomized in the Golden Rule.

It stands for the best methods in the practice of medicine and surgery.

It stands for the best means in combating disease, both as to cure and prevention.

In all things it stands for the best.

May I say a few words about Periodic Health Examinations? I have secured a manual from Dr. John M. Dodson, Secretary in charge of the Bureau of Health and Public Instruction at the office of the American Medical Association at Chicago.

They say: "In the past a person consulted a physician usually because he had symptoms of disease that demanded diagnosis and relief through treatment.

The average adult accepts certain tendencies to departure from the normal, such as overweight, constipation, premature baldness, or flat feet, as predetermined and beyond his control and has resigned himself to these conditions.

This attitude of resignation and acceptance of limitations is entirely out of accord with the present day demand for mechanical efficiency.

The human machine is coming in for its share of study and experimentation to increase its efficiency, and the physician is the efficiency expert who must direct this service.

The comparison of the human machine to an automobile is a time honored illustration of the importance of Periodic overhauling.

Probably most of us accept this idea and see the advantage of annual health examination for others.

But few of us have pressed the illustration to the point where we recognize that to get the best service out of the auto, it must not only be in the best mechanical condition possible, but must also have a driver trained to operate it intelligently.

We doctors have been content to be intelligent mechanics, limiting our attention to that most intricate of all machines, the human body.

Few of us have mastered the art of instructing drivers or have even become consciously expert in the management of our own machine.

We are not wholly to blame for this attitude. Human machines seldom come under our care when the training of the driver is the problem.

We are called hither and yon to repair defective machines. So many defective machines are constantly parked in our offices that we have no time to think of the drivers, except for necessary brief directions.

Also drivers seldom seek instructions, but accept as a matter of course their ability to manage their own machines.

Eventually certain parts of the training in health habits may become a definite part of general education; but at the present time when further research and the analysis of experience are needed the training and methods of doctors fit them to be leaders in this field.

This demands that physicians in addition to caring for the sick must assume the responsibility for the instruction of the supposedly well in such details of hygiene as will prevent them from developing illness.

One naturally believes that prevention of illness should begin with children. Therefore, this phase of work has been widely developed.

This is true if our prevention is to be a matter of legislative control; but if it is to be a matter of education, the present generation of adults must at least be awakened to the importance of prevention, and be persuaded voluntarily to seek health examinations.

While results with adults will not at first be startling, any one who has had

his defects pointed out, and who has been directed in methods of mending his ways, is bound to be an active force in influencing young folks to learn to manage their lives intelligently."

Dr. Emerson, of New York, says that the New York Tuberculosis and Health Association, 244 Madison Ave., N. Y., has an excellent movie film that was shown at the recent Dallas meeting of the A. M. A., which can be borrowed at the cost of transportation.

Anyone wishing to get any of these blanks making these examinations may obtain them from the American Medical Association. Ten copies for twenty-five cents; 100 copies or more, seventy-five cents per hundred.

Permit me again to express the pleasure it has given me to meet with you, the Fulton County Medical Society, so important and influential a unit of the State organization, a body of men upon whom we often depend, of whom we expect much, and in whom we have never been disappointed.

District and County Societies

District Editors

- | | |
|---------------------------------|-------------------------------|
| 1. Long, W. V., Savannah. | 7. McCord, M. M., Rome. |
| 2. Watt, C. H., Thomasville. | 8. Carter, D. M., Madison. |
| 3. Greer, Chas. A., Oglethorpe. | 9. Bennett, J. C., Jefferson. |
| 4. Peniston, Joe B., Newnan. | 10. Lee, F. Lansing, Augusta. |
| 5. Fitts, Jno. B., Atlanta. | 11. Mixson, W. D., Waycross. |
| 6. Thompson, O. R., Macon. | 12. Cheek, O. H., Dublin. |

1926 HONOR ROLL

1. Randolph County, Dr. G. Y. Moore, Cuthbert, November 5, 1925.
2. Warren County, Dr. Robert C. McGahee, Warrenon, December 22, 1925.
3. Dougherty County, Dr. Albert S. Bacon, Albany, January 4, 1926.
4. Upson County, Dr. H. A. Barron, Thomaston, January 7, 1926.
5. Lamar County, Dr. John M. Anderson, Barnesville, January 21, 1926.
6. Crisp County, Dr. J. N. Dorminy, Cordele, February 4, 1926.
7. Evans County, Dr. D. S. Clanton, Hagan, February 13, 1926.
8. Stephens County, Dr. C. L. Ayers, Toccoa, March 12, 1926.
9. Emanuel County, Dr. R. C. Franklin, Swainsboro, March 20, 1926.
10. Turner County, Dr. QJ. H. Baxter, Ashburn, March 31, 1926.
11. Screven County, Dr. J. C. Cail, Sylvania, April 23, 1926.
12. Wayne County, Dr. M. N. Stow, Jesup, May 4, 1926.
13. Pike County, Dr. M. M. Head, Zebulon, May 4, 1926.
14. Terrill County, Dr. Logan Thomas, Dawson, May 11, 1926.

15. Forsyth County, Dr. Marcus Mashburn, Cumming, July 2, 1926.

SIXTH DISTRICT MEDICAL SOCIETY

The June meeting of the Sixth District Medical Society was held in the auditorium of the Foy Hotel, Indian Springs, June 23, 1926. The President, Dr. A. F. White, Flovilla, called the meeting to order at 10:30. After the Invocation by Rev. William Bryson, Flovilla, Mr. J. D. Jones, President Jackson Kiwanis Club, welcomed the members of the Society and the visiting doctors to Indian Springs and Butts County. Dr. C. H. Willis, Barnesville, responded to the welcome address.

Scientific Program—

- (1) Blood Pressure Principles—Dr. F. L. Webb, Macon. Discussion by Drs. C. H. Richardson, Jr., T. E. Rogers and C. C. Hinton, Macon.
- (2) Value of Diathermy in Urology—Dr. Ernest Corn, Macon. Discussion by Dr. C. C. Harrold and Dr. Herring Winship, Macon.
- (3) Arsenical Dermatitis—Dr. J. M. Sigman, Macon. Discussion by Drs. Ernest Corn and G. Y. Massenburg, Macon.
- (4) Local Anesthesia in Industrial and

Minor Surgery—Dr. G. Y. Massenburg, Macon. Discussion by Dr. M. M. Stapler and Dr. O. H. Weaver, Macon.

- (5) Report of Recent Investigation Regarding Choice of Method of Treatment in Malignancies—Dr. C. C. Harold, Macon. Discussion by Dr. G. Y. Massenburg, Macon; Drs. E. C. Waits and Frank Boland, Atlanta.
- (6) Strangulated Hernia—Dr. O. H. Weaver, Macon. Discussion by Dr. C. W. Roberts, Atlanta, and Dr. G. Y. Massenburg, Macon.

After the discussion of Dr. Weaver's paper the meeting adjourned for lunch.

A most delightful lunch had been prepared by the Foy Hotel, and was served on conveniently arranged tables in the spacious dining hall. During the lunch attention was called to the Society of the illness of one of its members, Dr. A. H. Black, Thomaston. A motion was passed instructing the Secretary to wire Dr. Black, Wesley Memorial Hospital, Atlanta, extending to him the sympathy of the Society and well wishes for an early and complete recovery. Interesting talks were made by visiting members from the Third, Twelfth and Fifth District Societies.

At 3:00 P. M. the meeting was called to order and the scientific program continued as follows:

- (7) Diagnosis and Treatment of Duodenal Ulcer—Dr. J. A. Fountain, Macon, Discussion by Drs. R. W. Richardson, M. M. Stapler and T. E. Rogers, Macon.
- (8) X-Ray Demonstration—Use of Lipiodol in Uterus and Tubes—Dr. C. H. Richardson, Jr., Macon. Discussion by Drs. O. H. Weaver, M. M. Stapler and T. E. Rogers, Macon.

Dr. C. L. Ridley made the following motion which was carried unanimously: "That the Sixth District Medical Society endorse the rigid enforcement of the Vital Registration Law in Georgia."

The visiting members from other Societies were: Drs. Frank K. Boland, Allen H. Bunce, C. W. Roberts, E. B. Elder, C. E. Waits, J. P. Bowdoin, R. S. Leadingham,

R. H. Oppenheimer and B. H. Cline, Atlanta; Dr. Ford Ware, Americus; Dr. V. O. Harvard, Arabi; Dr. Geo. W. Dupree, Gordon, and Dr. G. W. Willis, Ocilla.

The Sixth District Medical Society will meet in Macon, first week in December, as the guest of the Macon-Bibb County Medical Society.—O. R. Thompson, M.D., Sec'y.

FULTON COUNTY MEDICAL SOCIETY

Dr. Hugh Cochran reported a case of Ovarian Pregnancy which was discussed by Dr. E. C. Davis. Dr. T. C. Davison reported cases of Duodenal Ulcer, Gastric Ulcer, and Gastric Carcinoma. The clinical talk was made by Dr. J. K. Fancher on Abnormal Body Weights and Their Relation to the Endocrines, discussion by Dr. A. B. Elkin and Dr. Arch Smith. The paper of the evening was read by Dr. L. G. Baggett, the title of his paper being Gastric and Duodenal Ulcers. Discussion was by Drs. T. C. Davison, Trimble Johnson, W. A. Selman, G. W. Fuller and Arch Smith.

There were several committee reports of interest, after which the meeting was adjourned.

The first meeting in June, of this Society was held Thursday evening, June the 3rd, at the Academy of Medicine, 32 Howard St. In the absence of the president, Dr. W. P. Nicolson, Sr., presided.

Dr. Geo. W. Fuller reported a case of Lung Abscess following Carcinoma of Esophagus, which was discussed by Drs. T. C. Davison, E. C. Thrash and C. C. Aven. A case of Pelvic Abscess was reported by Dr. O. S. Cofer, and Dr. H. G. Carter reported a case of Calcification of Brtholin's Gland. A clinical talk on Management of Menopause Hypertension was given by Dr. C. W. Strickler and discussed by Dr. Thrash. Dr. W. W. Anderson read the paper of the evening on the subject of Pyuria in Infants and Children, which was discussed by Drs. Funkhouser and Adkins.

After several announcements of interest the meeting was adjourned.

Respectfully submitted,

GRADY E. CLAY.

Secretary.

Medical Progress

IMMEDIATE CONTROL OF POST-PARTUM HEMORRHAGE

M. C. PRUITT, M.D.

Atlanta

The object of this note is to bring to mind some of the usual procedures used in the IMMEDIATE CONTROL OF POST-PARTUM HEMORRHAGE and to add another method to this list which is original on my part so far as I am able to find in literature.

This subject has been of vital interest to me since my Senior year in Medical College, when I was present with other students at a delivery of a colored woman.

Just as the head was being born the woman had an epileptic fit, the baby was born and she had a hemorrhage that was so profuse that she died in a few minutes.

This case impressed on me the like of time and preparation for such an emergency. Also the importance of having the knowledge at your command of the various procedures used in such cases, as frequently there is little time to think and less time to act.

If there is ever a time in the life of a doctor when he needs to be calm and collected and to put forth quick and intellectual action it is when brought face to face with a Post-Partum Hemorrhage.

Immediately after the delivery of child hemorrhage may arise from tears of the birth canal, cervix, and from the interior of the uterus.

Hemorrhage from tears of the birth canal are usually slight and can be located by inspection and can be controlled by pressure or by clamp or suture, and will not be considered further.

Many methods are used to control hemorrhage from the cervix and interior of the uterus. No one method can be depended on in all cases. My reason for adding another method to this list is, that I think this method suitable and can be depended on for all cases.

From a clinical standpoint Post-Partum Hemorrhage may be classified into:

- (1) Hemorrhage before the expulsion of the placenta. If hemorrhage occurs before the expulsion of the placenta vigorous massage of uterus through abdominal wall is advised. If the bleeding ceases wait, if the bleeding continues try credes' method, if this fails manual removal of placenta is recommended.
- (2) Hemorrhage after the expulsion of the placenta.
 - (a) Lower head of bed.
 - (b) Vigorous massage of uterus through abdomen.
 - (c) Pituitrin, ergot, etc.
 - (d) Hot intra-uterine douche.
 - (e) Packing of uterus.
 - (f) Acetic acid, Per-chloride of Iron, ice etc, introduced into the uterus.
 - (g) Compression of the uterus. This may be done by grasping the uterus with one hand through the abdominal wall, while the other is introduced into the uterine cavity; or by compressing the uterus into the anti-flexed position; this is done by passing two fingers into the posterior cul-de-sac, and pressing the cervix forward while the other hand, upon the abdomen, is made to press upon the fundus posteriorly bringing it forward.
 - (h) Flapping the abdominal wall with a wet towel.
 - (i) Pouring cold water over abdominal wall from a height.
 - (j) Compressing the abdominal aorta through the abdominal wall.
 - (k) Clamping the Parametrium, Hysterectomy, etc.

The method which I wish to add to this list is done by grasping the cervix with heavy tenacular forceps and making traction downward with enough force to cut off the blood supply to the uterus. The value of this method can be explained by anatomical and mechanical reasoning, thus !

Anatomy

Hypo-gastric arteries (O.T. Internal iliac.) short wide vessel one and one-half inches in length, commences sacro-iliac articulation at level of lumbo sacral articulation: It runs downwards and backwards and ends near upper border of great sacro-sciatic noted by dividing into an anterior and posterior division. Given off from the anterior division of the hypo-gastric are the uterine and vaginal arteries. Ovarian from abdominal aorta. Traction downward on uterus makes traction and compression on the vessels which supply the uterus.

Cause of hemorrhage from the uterus:

- (1) Partial separation of placenta.
- (2) Rupture of varicose veins or aneurysms of uterine artery.
- (3) Disturbance of areas of thrombosis in the cervix.
- (4) Myomata in uterine wall.
- (5) Paralysis of placental site.
- (6) Adhesion to surrounding structure.
- (7) Retention of isolated Cotyledons or of a small succenturiate lobe.
- (8) Atony of uterus.

Author's Treatment

Any of the above causes of hemorrhage can be controlled immediately with slight risk of adding infection and almost no loss of time in preparation by this method.

Traction downward must be sufficient to cut off the blood supply to the uterus. The teeth or prongs of the volsella forceps must be round and large so that it will not tear out of the tissue. You can pull the uterus until the cervix turns black, which is one way of proving that the blood supply is cut off. The release of the traction must be gradual. Notice for recurrence of hemorrhage, if the flow starts make more traction, wait 15 or 20 minutes and then gradually release.

After you have controlled the hemorrhage,

preparation can be made and whatever treatment thought wise can be instituted. I have used this method in five cases with immediate results.

The following case reports, one of my own, and two by Dr. Frank Wells, illustrates the value of this method, regardless of cause of hemorrhage from uterus.

Case No. 1, Author's Case:

Mrs. C. Age 26, second pregnancy, first labor normal, lasted about twelve hours. Did not have a Doctor during last pregnancy until she went in labor. She was in for forty-eight hours, membranes ruptured thirty-six hours before delivery, L. O. A. presentation, labor pains kept up from time she went into labor. The mother was completely exhausted and a profuse hemorrhage followed immediately after delivery of baby. Crede's was used, and the placenta was easily delivered, uterus did not contract, the hemorrhage continued and was so profuse that in about five minutes the patient was almost pulseless with sighing, respiration. The anterior and posterior lips of cervix was grabbed with volsella forceps and traction made downward until the bleeding stopped, which was almost immediately. The traction was kept up for about an hour and then gradually released, at the end of which time the uterus had contracted. No further bleeding occurred. The patient was in such bad condition she was given five hundred cc of saline intravenously. This patient made an eventful recovery.

Dear Doctor Pruitt:

I have used the method suggested by you for the immediate control of POST-PARTUM HEMORRHAGE in the two following cases. Case No. 2, by Dr. Frank Wells:

Mrs. W. age 20, had been in labor for thirty-six (36) hours. She was a very small woman and the baby was very large which after birth weighed fourteen (14) pounds. With extreme effort she was delivered with forceps, causing 2nd degree laceration of perineum; also the uterus was lacerated into the broad ligament, tearing into a very large branch of the uterine artery. This woman was in her home eight (8) miles from the hospital, and it was impossible to stop this

hemorrhage by packing so I grasped the anterior and posterior lips of the cervix each with a volsella forcep and traction enough was placed on the forceps, to cut the blood supply off from the uterus. This is simply a mechanical proposition and can be done on any post-partum case. The patient was carried in ambulance to the hospital and immediately carried to the operating room which was two hours after delivery and when the traction was released, the hemorrhage was as great as in the beginning; also the uterus had turned very dark, due to the non-blood supply. We were able however, to catch the bleeding artery and repair the laceration. Two years later this patient was delivered normally with an eight pound girl. Case No. 3, by Dr. Frank Wells:

Mrs. C. age 35—normal delivery about 2:00 A.M. She had a profuse post-partum hemorrhage. I used all the medical treatment to stop it and then resorted to the volsella forceps, pulling the uterus down and cutting the blood supply until I could get another doctor to give an anesthetic. Under anesthesia, I put my hand into the uterus and found a large blood clot, upon removing it, I had no further trouble.

MAIL DIRECTORY INFORMATION CARD PROMPTLY

During the month of June, every physician in the State should have received a Directory information card. Every one is urged to fill out and return the stamped card regardless as to whether he or she has changed their residence or office address.

This information will be used in compiling the Tenth Edition of the AMERICAN MEDICAL DIRECTORY, now under revision in the Biographical Department of the Association. The Directory is one of the altruistic efforts of the Association, and is published in the interest of the medical profession which means ultimately in the interest of the public. It is a book of dependable data concerning the physicians and hospitals in the United States and Canada.

AMERICAN MEDICAL ASSOCIATION,
June 15, 1926.

(Continued from page 278)

SUB-LUXATION FRACTURE OF THE DORSAL SPINE

I had one of the nurses construct harness for his axilla and head, which was fastened to the head of the bed; the frame on which he was suspended being raised about six inches above the foot of it. Another girdle of my design, reinforced in the belt, well padded over points of contact, and so shaped as to not interfere with any treatments necessary, or attention required, was buckled about his waist and hips. From this heavy canvas as a continuation in the cutting of it, ran two strong straps down over each trochanter, and over wide pulleys at the foot of the bed. From these extremities hung approximately forty to fifty pounds of weight on each side. These weights were varied to suit demands, but never removed entirely during the process of healing, and to this apparatus belongs part of the credit for ultimate results, in my opinion.

Of course there have been many more remarkable cases than this, and it is only brought to your attention to stress the fact that ingenuity and the application of little mechanical bents in one's make-up can often take the place of skill and ready-made equipment.

COMMUNICATIONS

Dr. J. A. Redfearn writes from Dr. Cabot's Clinic:

Dear Bunce:

Dr. Cabot's Course has been most interesting and I hope will prove very helpful. He spikes our old mitral regurgitation and shows mitral stenosis the main thing to consider when listening at the apex. In nearly 2,000 autopsies there was evidence of uncomplicated mitral insufficiency only 10 or 11 times. He follows his physical diagnosis textbook in classifying heart disease: (1) rheumatic, 25 to 40 per cent; (2) syphilitic, 10 per cent; (3) hypertensive heart disease, 50 to 60 per cent. I am really ashamed of our section when I think of the few autopsies we have, particularly when most of them are to see whether some one took or received poison. I know of nothing that would probably prove of more value to the people of

Georgia than for Dr. Harvard to start a campaign, through the press, school, pulpits and civic clubs, to educate the public to the great need of this method of advancement. When I left home I had thought of writing Dr. Harvard and suggesting an intensive campaign to get medical hatchets buried in the various communities, thus showing a genuine brotherhood, but I now feel like suggesting exchanging them for dissecting tools, and holding our county meetings every once in a while about our departed patients, to learn, if possible, the cause of death.

Dr. Cabot took the class today into the room where Dr. Morton first used ether before a crowd, or publicly, as he said. When he got through, I asked to say a word, and told this group of doctors from nearly every state in the union, that Dr. Crawford W. Long was in the Hall of Fame in Washington, because he first used ether as a general anaesthetic. Dr. Cabot remarked that Dr. Long's claim was a just one. Am going to read a paper on physical diagnosis at Waycross at their District meeting. Hope you will be there, for I have many interesting things to tell about the work here.

Sincerely,

J. A. REDFEARN.

To the Editor:

In 1879 from The Philadelphia College of Pharmacy, one of the 115 students who graduated was Joseph Jacobs, of Athens, Ga. This boy of 19 years had traveled 900 miles from Athens to Philadelphia to get the best pharmaceutical knowledge possible in the United States.

With the financial assistance of some of his relatives, Joseph Jacobs opened a drug store in Athens, Ga. in 1879, and in his own laboratory manufactured all the U. S. P. and N. F. preparations used in the prescription department. He realized that the ethical manufacturing side of Pharmacy was most important for the success of a drug store.

After five years in Athens, Dr. Jacobs moved to Atlanta and the business of the Jacobs' Pharmacy Company was organized after buying out Walter Taylor in 1884. From that time until the present business

has steadily gained in volume, there now being eleven stores in Atlanta, and plans for three additional stores.

The Jacobs' stores now lay particular stress on the scientific side of Pharmacy, manufacturing in their own Laboratory all the U. S. P. and N. F. preparations used in their Prescription Departments. The Prescription Departments are in charge of Registered Pharmacists, and these men fill Prescriptions—they do not jerk Soda Water, sell Stamps, Candy, Sandwiches nor Lip Sticks—it is their business to fill Prescriptions correctly, as a doctor orders.

JACOBS' PHARMACY COMPANY,

Atlanta.

To the Editor:

For the information of your readers, we take pleasure in informing you that we have recently acquired High Rock Spring, located in Ormwood near Atlanta, and regular deliveries of this well known water in Atlanta and suburbs, together with water cooler service where desired, will be made daily. It will be recalled by many of the older residents of Atlanta that some years ago this water, by reasons of its general excellence and regular delivery service, was very popular, but in late years it has been sold only in a limited way.

High Rock Spring water, as will be noted from the following analysis, made by Dr. Edgar Everhart, of the Georgia Geological Department, is a combination of health-giving minerals, and many Atlantians of prominence who have used it state that the water really has a decided tonic effect, and is especially valuable for indigestion.

Analysis of High Rock Spring Water

Laboratory Edgar Everhart, Chemist
Georgia State Geological Dept.

April 30, 1926

Potassium Chloride .....	.070
Sodium Chloride .....	.700
Calcium Carbonate .....	.746
Magnesium Sulphate .....	.222
Magnesium Carbonate .....	.449
Silica .....	.991

Ferrous Carbonate017
Carbon Dioxide, CO₂524

A pure, clear, soft Spring Water

The spring is not a surface flow, but flows upward through solid rock, and the water is exceptionally pure, clear and sparkling, suitable for table use.

The Pura Water Company also produces Pura Water, which is triple-distilled (not merely boiled) for which they have a large sale in Atlanta and the Southeast for drinking as well as other purposes where absolute purity is paramount, and Wauseka Lithia Water, another guaranteed product, both being sold direct to consumer and through drug stores. Special prices on these waters are made to physicians.

PURA WATER COMPANY.

To the Editor:

To encourage investigations of alimentary tract function, Dr. Frank Smithies, Chicago, has presented to the School of Medicine of The University of Illinois, bonds in amount sufficient to yield annually, in perpetuity, not less than \$100.00. This fund is known as "The William Beaumont Memorial Fund" and the income therefrom, as "The Annual Beaumont Memorial Award.

UNIVERSITY OF ILLINOIS.

TELEGRAM FROM DR. DEAN

Dr. J. G. Dean, of Dawson, a Past President of the Association and a leader whom we all admire, sends the following message to his many friends throughout the state:

Dawson, Georgia.

June 18, 1926.

To the Editor:

Georgia needs doctor and business man for Governor, get behind Hardman. He fills requirement. Opportunity here, others push their man, why not we ours.

J. G. DEAN.

TELEGRAM

Commerce, Georgia.

July 2, 1926.

Dr. Allen H. Bunce,
Atlanta, Georgia.

Please send list of doctors in state at once,

if we push things as we should Hardman will be next governor. Urge doctors to line up behind him.

A. A. ROGERS, M. D.

NEWS ITEMS

Dr. Theodore Toepel announces the removal of his offices from 65 Forrest Avenue to 525 Candler Building, Atlanta.

Dr. J. F. Covington, Ashburn, has been elected to the Staff of the John D. Archbold Memorial Hospital of Thomasville.

Dr. Guy G. Lunsford, Weston, was appointed Trustee of the Medical Department of the University of Georgia by Governor Walker for a term of three years.

The Troup County Medical Society held a one-day clinic in LaGrange on May 27. Dr. Wm. J. Cranston, Professor of Medicine of the University of Georgia, was in charge.

Dr. W. A. Mulherin, Augusta, held a clinic in the afternoon of May 27 in LaGrange on children's diseases.

The graduating exercises of the Medical Department of the University of Georgia, Augusta, were held May 31st at 8:30 P.M. There were twenty-four in the graduating class.

Dr. E. R. Clark, professor of anatomy of the Medical Department of the University of Georgia, Augusta, resigned and has accepted a position as professor of anatomy with the Medical Department of the University of Pennsylvania, Philadelphia.

Dr. G. Lombard Kelly, Augusta, has been elected associate professor of anatomy of the Medical Department of the University of Georgia, Augusta.

Miss Loree Florence, Athens, was the first woman to receive a medical degree from the Medical Department of the University of Georgia, Augusta.

The finance committee of the city council in preparing a new finance sheet propose to appropriate \$200,000.00 for the building of a \$400,000.00 annex to Grady Hospital to be used as a pay ward. If this is approved by Mayor Walter A. Sims and the council, Fulton County will be asked to ap-

appropriate \$100,000.00 and with the \$100,000.00 given by Mr. Elsas the work will be completed.

Permit has been issued to the Medical Building Company for a twelve story, brick and steel structure at 360-2 Peachtree Street for a building to be occupied by physicians, dentists and druggists, to be known as The Medical Arts Building. Dr. H. C. Sauls is president of the company.

Dr. J. L. Patterson, Millen, prominent physician and sixty-one years old, was injured while riding in an automobile with Mr. D. J. Johnson, of 89 N. Howard Street, Atlanta, and was carried to Grady Hospital for treatment.

Dr. Francis G. Jones announces the opening of offices at 53 Forrest Avenue, Atlanta. Practice limited to Dermatology, Radium, X-Ray and Mutiltherme Therapy.

Mrs. M. J. Howard, R. N., located at 25 E. Kimball Street, Atlanta, will be glad to receive out-of-town mothers and children, convalescents, and all kinds of medical cases, special attention to diet.

The United States Department of Agriculture has had considerable success destroying mosquitoes and their larvæ by dusting large swamp areas with Paris green by the use of an airplane. They claim that in some instances they have killed as high as 99 per cent with one application.

The Wayne County Medical Society held their first clinic on June 1st at the City Hall in Jesup.

The Supreme Court of Georgia in reviewing the case of a Georgia physician and upholding the State Board of Medical Examiners, pointed out that as far back as two thousand years before the Christian era that the law stepped in to fix fees and regulate professional conduct.

The Third District Medical Society held its thirty-eighth semi-annual meeting in Americus on June 16th as the guest of Sumter County Medical Society. A number of excellent papers were read by prominent physicians of the district.

Eighteen nurses were graduated from Emory University School of Medicine and received certificates on June 4th.

At the biennial convention of the American Nurses' Association, held in Atlantic City, May 17-22, Miss S. Lillian Clayton, Philadelphia, was elected President; Miss Elnora Thomson, San

Francisco, First Vice-President; Miss Jane Van DeVrede, Atlanta, Second Vice-President; Miss Susan C. Francis, Philadelphia, Secretary; Miss Jessie E. Catton, Treasurer.

Miss Carrie M. Hall, Boston, Mass., has been elected President of the National League of Nursing Education.

A joint meeting of the Third, Sixth and Twelfth District Medical Societies was held at Indian Springs on June 23. Prominent physicians from every section of the districts attended the meeting. Dinner was served at the Foy Hotel.

Mrs. Anne L. Hanson, Buffalo, N. Y., was elected president of the National Organization for Public Health Nursing; Miss Jane VanDeVrede, Atlanta, first Vice-President.

Dr. A. A. Barge, Newnan, was elected president of the Fourth District Medical Society; Dr. Guy J. Dillard, Columbus, Vice-President; Dr. Joe B. Peniston, Newnan, secretary.

Mrs. William J. Neel and Mrs. J. W. Vaughn, of Cartersville, and Mrs. H. J. Porter, New Orleans, have endowed a ward at the Georgia Baptist Hospital in memory of their mother, known as the "Harriet Elizabeth Williams Maternity Ward."

The next convention of the American Nurses Association will be held in Louisville, Kentucky, in 1926.

Dr. E. L. Connally, Atlanta, has given \$5,000.00 to the Building Fund of the new unit of the Georgia Baptist Hospital in honor of his wife, Mrs. Mary Brown Connally.

7,500 members of various health and nursing organizations met in Atlantic City for the First American Health Congress; about two-thirds were nurses.

Dr. Chas. Usher, Chief-of-Staff of the Savannah Hospital, delivered the Florence Nightingale pledge and pins to six nurses on the evening of June 11 at their commencement exercises, held on the campus.

Dr. George F. Eubanks, Jr., Atlanta, a graduate of Emory University, has been selected one of thirteen from a list of three hundred applicants to receive a three year fellowship in surgery at Mayo Clinic, Rochester, Minnesota.

Dr. T. H. Chestnut and Dr. Henry Jones, Coolidge, entertained the doctors of the Thomas County Medical Society at their June meeting held in Coolidge.

The June number of Hospital Management carries an interesting account of a plan to furnish special night nursing to hospital patients. Under this plan the patient pays for the special nurse during the day and a prorated additional fee for co-operative special night nursing. It gives valuable information on how one small hospital conducts its school of nursing, the government of the training school, selection of the students and other resources which may be drawn upon for their benefit.

The Tri County Medical Society met in Arlington on June 9 as the guest of Doctors C. K. Sharp and W. W. Calhoun, prominent physicians of that city. They treated the attending physicians to an elaborate fish fry. Dr. J. C. Patterson, Cuthbert, read a paper on "Surgical Risk in the Handicapped Patient." Dr. P. E. Griffin, Edison, read a paper on "Common Colds." The next meeting of the Society will be held at Colquit in September.

The Coweta County Medical Society entertained the members of the Fourth District Medical Society at a barbecue in Newnan on June 15. Practically every city in the district was represented by one or more prominent physicians.

Dr. T. S. Bailey, Newnan, was elected president of the Association of Georgia Penitentiary Camp Surgeons at a meeting held in the DeSoto Hotel, Savannah, June 3. Dr. M. M. Head, Zebulon, was re-elected secretary-treasurer.

Dr. Wm. L. Mathews, Winder, has purchased a home on Broad Street in Winder, and will remodel and furnish for use as a modern hospital.

BOOKS RECEIVED

Collected Papers of the May Clinic and Foundation, Edited by Mrs. M. H. Mellish, H. Burton Logie, M.D., and Charlotte E. Eigen Mann, B.A. Volume XVII. 1925. Published May, 1926. Contains 1,078 pages. Price: Cloth, \$13.00 net. Publishers: W. B. Saunders Company, Philadelphia.

BOOK REVIEW

A Compend of Diseases of the Skin. By Jay Frank Schamberg, A.B., M.D., Professor of Dermatology and Syphilology, Graduate School of Medicine, University of Pennsylvania; Ex-President of the American Dermatological Association, etc. Seventh Edition, revised and enlarged, 12 mo., cloth, 316 pps., 119 illustrations. Price, \$2.00. P. Blakiston's Son & Co., Philadelphia.

This little book is designed for the use of practitioners and students, as a reference book and a key to the study of dermatology.

The subject of skin diseases if presented in a concise and readable form. Especial attention has been paid to the differential diagnosis and treatment of the more important affections. The rare and relatively unimportant conditions are not discussed in this little volume.

The section on syphilis has been thoroughly revised, and a definite course of treatment is given.

The author mentions the value of, and the indications for vaccine and x-ray therapy in cutaneous diseases.

R. T. WARNOCK, M.D.

Allergy—Asthma, Hay Fever, Urticaria and Allied Manifestations of Reaction. By William W. Duke, Ph.D., M.D., St. Louis. The C. V. Mosby Co. 1925.

This is a well written and interesting volume on hypersensitiveness. The author presents the facts in as clear a manner as possible in this line of work realizing that we are only on the threshold. Many reactions cannot be explained and often differ in each individual case.

The arrangement of the book is good, being divided into two parts. Part one deals with true allergy commencing with chapters on Experimental Anaphylaxis. This is followed by a chapter on Serum Sickness dealing with the prevention and treatment of this condition. Hypersensitiveness in human beings is discussed at length; taking up the agencies which sensitize humans. The author brings out the fact that very mild and appar-

ently innocent protein to one person may be a violent poison to another.

Part two, deals with the reaction of physical agents as heat, cold, light, etc., etc. The book is well illustrated and should find a useful place in the library of all physicians.

EUSTACE A. ALLEN, M.D.

Pleomorphism in Bacterial Protoplasm. By Andrew Todd McClintock, M.D.

As stated by the editor, this work is incomplete. If the author had lived to complete his work there would have been much rearranging of material and completion of thought. Many ideas are formed without much proof, and many are incomplete.

This book, having been written on a very rare subject may find a place in the library of the scientific research worker but is of only historic value to the physician. It shows much labor in accumulating data and protocol study but because of the early death of the author is incomplete in many respects.

EUSTACE A. ALLEN, M.D.

A Compend of Gynecology. By William Hughes Wells, M.D. Philadelphia. P. Blakiston's Son & Co. 1925.

This compend covers the subject of gynecology well in a rapid fire review. Newer means of diagnosis and treatment are covered. The arrangement is an improvement over previous editions.

The descriptions of operations and all operative measures are grouped together in the section on *Operative Gynecology*. Only those operations which are in present use are described.

It affords the practitioner a very good opportunity to inform himself on present day methods of diagnosis and treatment in the minimum of time.

M. T. HARRISON, M.D.

Abdominal Operations, Volumes I-II. By Sir Berkeley Moynihan, Leeds, England. Fourth edition. Revised. Fully illustrated. W. B. Saunders Company., 1926.

The fourth edition of this work is divided into two volumes. This is the first edition

since the outbreak of the World War. Two chapters have been completed and several new chapters added. Among them is one which deals with Surgical Technique.

In these volumes only operations common to both sexes are included. No gynecological operations are described.

The author has purposely omitted any detailed reference to any mechanical appliances for intestinal anastomosis, for he believes that the purposes of these mechanical aids has been served, and that their interest is now only historical.

Both volumes are well illustrated and well written.

C. E. RUSHIN, M.D.

Operative Surgery. By J. Shelton Horsley, M.D., F.A.C.S. Second edition. Cloth. Pages 774, with 666 original illustrations. Richmond, Virginia, The V. C. Mosby Company.

This book contains most of the operations in general surgery. Most of the operations described are those the author has performed and the others are ones he thinks best for the conditions described.

The greatest change in the second edition of this book is the addition of a chapter on the principles of operations for malignant growths, in which some of the recent views of cancer are stated, and their bearing upon the operations for cure of malignant tumors is noted. A section of this chapter is devoted to the treatment of burns from radium and x-ray.

A number of new operations are described: The lymphaticostomy of Costain for diffuse septic peritonitis and the late obstruction of the bowels, the operation of Stookey for innervating paralyzed muscles, the pylorotomy of Finney, the pulmonary lobectomy of Evarts A. Graham, the valvotomy of Cutler for mitral stenosis, the operation of Coffey and Brown for angina pectoris, chordotomy of Frazier and the intestinal resection of Kerr.

The material covered is well presented and the text is greatly enhanced by the exceptionally clear and well drawn illustrations by Miss Helen Lorraine.

C. E. RUSHIN, M.D.

Young's Practice of Urology. Based on a study of 12,500 cases. By Hugh H. Young, M.D., and David M. Davis, M.D., Johns Hopkins University. With the collaboration of Franklin P. Johnson. Two octavo volumes, totalling 1,484 pages, with 1,003 illustrations, 20 being color plates, by William P. Didusch, Philadelphia and London. W. B. Saunders Company. 1926. Per set, cloth, \$25.00 net.

About twenty-five years ago the reviewer first saw Dr. Hugh H. Young when demonstrating one of his early contributions to the urologic world before a clinic in Baltimore. The instrument he demonstrated was merely a modification of the blades of the Bottini Cautey, but it was a start and from this rather insignificant beginning we have watched the development of urology, and among the men bringing about the wonderful advances of the past twenty-five years, Dr. Young has been in the fore-front. He had vision, enthusiasm, an inventive mind and a winning personality. Thanks to these and other desirable qualities, the two volumes which we now review will remain a "Stone Mountain Monument" in honor of his part in our notable urologic achievements.

Young's *Practice of Urology* is more a monograph on the work done by the urologic department at Johns Hopkins than a cut and dried text book. Its detailed recital of their personal experiences makes most interesting reading. This searching clinical study of their own experiences, however, lessens to a degree the value of this work as a standard text book, because of the unusually minute details on certain subjects, while other important phases of urology are treated in a somewhat casual manner. This seeming criticism is really in a way not a criticism but rather is a compliment in that it directs attention to the enormous amount of detailed, constructive research and inventive work which has been carried on under the direction and supervision of Dr. Young. The well balanced text book is one devoid of personality which arranges in orderly array the choice selections from all of the workers in a given field. This book has a striking personality and represents the personal experi-

ences of the men who have been adding a great number of the sign posts and the mile-stones along the road urology has progressed until today, when it may be asserted without fear of contradiction, that it is the most scientific branch of medicine and surgery.

In reading this book and looking back over the twenty-five years of progress in urology, one is greatly impressed with the immense amount of the worthwhile achievements the well directed efforts of one man may accomplish. It is with regret we cannot enumerate the list of Dr. Young's achievements but they are too numerous to include in this review. We feel, however, that we must compliment especially the simple, direct style in which these volumes are written; almost never does one have to reread a paragraph to obtain the meaning intended; while the volumes are big, the sentences are reasonably short and easily understood; the illustrations really illustrate and elucidate the text. It will be many years before another book on urology will be published which contains as many original achievements as does this urology.

E. G. BALLENGER, M.D.

CALCIFIED BRAIN TUMOR.

In the case reported by George M. Crabb, Mason City, Iowa (Journal A. M. A., July 25, 1925), the tumor was spherical and wholly within the brain substance, and the calcium shell completely surrounded the cyst cavity. It was situated in the left frontal lobe, and was many times the size of any of the calcified tumors that have been reported heretofore.

A TREATMENT FOR WHITE PHOSPHORUS BURNS

As the result of experiments by Duncan C. Walton, Edgewood, Md. (Journal A. M. A., May 23, 1925), a 1 per cent. copper sulphate solution is recommended as a treatment for white phosphorus burns. Whenever a phosphorus burn is received, a large sponge of absorbent cotton should be saturated with a 1 per cent. copper sulphate solution, and applied to the burning phosphorus. Within two or three minutes, it will be possible to remove the sponge. The copper-coated phosphorus should then be removed by forceps or by irrigation, and the case then treated like any other burn.

Medical Association of Georgia

Next Annual Meeting, Athens, Ga., May 10, 11, 12, 13, 1927

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**INCREASE IN SMALLPOX DISGRACE TO
COUNTRY**

To the shame of a world that presumes to call itself intelligent, smallpox continues to menace the people of all nations. During the calendar year 1924 there were more than 218,000 cases and more than 50,000 deaths from this disease. In the United States during 1924 there was an increase of 75 per cent in the number of cases and of 62.8 per cent in the number of deaths, as compared with 1923.

While it is no doubt true that the reporting of the disease and its detection are better in the United States than in many other countries, and while the disease in general is mild, its occurrence is unnecessary if the advantages of smallpox vaccination and the application of known preventive measures can be extended as they should be.

An increase—indeed, even the continuance—of this disease warrants the epithet applied by Charles Richet of "idiot man." Lack of knowledge might be considered an excuse; failure to use available knowledge to advantage is merely stupidity.

—Hygeia.

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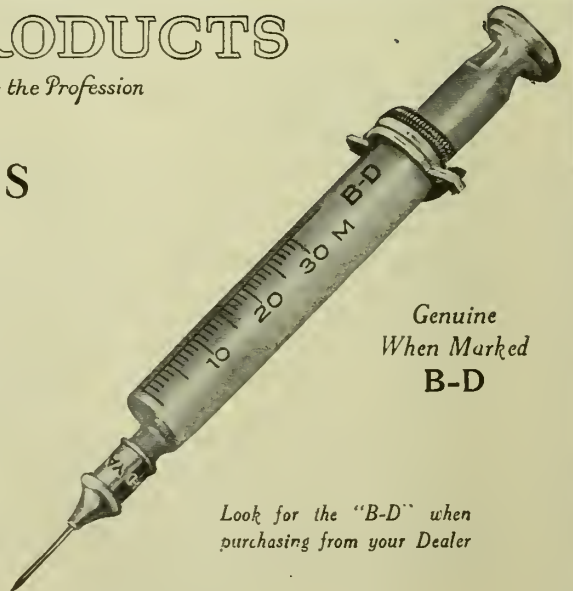
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Original Articles

SANITATION PROBLEMS OF SMALL CITIES*

J. W. CHAMBLISS, M.D.

Americus

We have had three distinct periods on sanitation problems. Turning back the pages to a hundred years ago, it was believed that all diseases came from filth, thus began the first active work on sanitation. The year eighteen hundred and seventy-nine marked a second period, at which time Pasteur and others through research work began to learn something on preventative medicine, that threw new light on sanitation, until recently, we have been directing our efforts along the line of prevention. Now we are beginning upon the third period, a period to promote positive health. In this promotion education is of first importance. This period having just begun we must not forget that education has not progressed far enough to be effective without the enactment and enforcement of certain laws governing the health and sanitation of our country. Today we cannot censure the man who still believes that malaria comes from mud, nor is he to be pitied half so much as the man without sufficient courage, in the face of embarrassment, to go forward and educate these people along the lines of sanitation, prevention and positive health programs.

In considering some of our problems under sanitation let us first discuss water supply. While we have few water borne dis-

eases, they are sufficient in number to warrant every town to have pure drinking water. The earth does afford pure water and the contamination of this is, usually, from our own acts. Given pure water from the earth we should see that there is no pollution or contamination allowed from its origin to the lips of its consumer. With the aid of the State Laboratory we can check our water as for safety and keep posted at all times. This we should do and see that the people are furnished with water made and conveyed safely. I fail to agree with some upon the point of chlorination of water. In some instances it may be justifiable but it is my opinion that we had best use only pure drinking water and by some means prohibit it being contaminated rather than attempt to treat a water that is unsafe.

Next we will consider sewage. It did not matter so much when one family lived on one hill and another quite a distance apart, about sewerage problems, but today, with crowded conditions, no town or community is safe without adequate sewerage. The most common one in use, possibly, is dilution in a stream. This method is safe, provided we do not have more than one per cent sewage to the dilution, if the fall is sufficient to carry the water swiftly enough for it to purify itself the first mile down stream. In the event this method is used all dairy cattle, swine, etc., should be kept from this stream and we should be sure that our sewage is not damaging the water supply to anyone else. Next in order is the septic tank which can be made absolutely safe and sanitary with the annual care of the sludge.

*Read before the Medical Association of Georgia, Albany, Ga., May 12, 1926.

Having to consider the expense, at times, of either of these problems, we feel that in certain localities a pit type of toilet, which is inexpensive, can be made effectual if the directions furnished by the State Board of Health are carried out. By way of diversion, I might say, that this pit type of toilet is serving a great purpose in rural districts where we find tenant houses close together as in cities. It is certainly noticeable that in the rural districts, as mentioned above, that we have more typhoid fever and dysentery than in sewered districts. So, we feel, that these diseases must largely be controlled by sanitation, as well as by vaccination; with emphasis on the former.

Given pure drinking water in our towns, properly sewered, garbage and waste are no little problems in themselves. A method in reach of all is to daily have collected in a covered can, all garbage and waste, and this removed to a crematory. The crematory must be of sufficient size to properly consume the waste. Then it does not matter so much as to its location, because it would not be objectionable.

Great progress has been made, in recent years, upon the manufacturing and handling of our milk and meat supplies. We attribute this improvement to the awakening of the people to its importance and the watchful eye of an inspector. So we feel that every town needs a milk and meat inspector; one who is competent to judge and ethical enough to get the co-operation of the consumer and the producer. Then we get results. A thousand people can become infected with a given disease from a dairy or a food supply place that is unsanitary as compared with one from a private residence, unsanitary. Therefore, we should be more particular and devote more time to these places than those less dangerous. Quite a few times, recently, have we found by inspection, meat and milk unfit for human consumption, which could only have been recognized by a competent inspector. To make sanitary, usually, is to make safe. As stated before, people are not so educated that we can do away with the laws governing the sale of these products, but by complying with the sanitary laws of our State we feel safe in their consumption.

Possibly two of our problems which have hampered the progress of the South most, owing to climatic conditions, are the mosquito and the fly. Directly and indirectly these two insects concern us most, and with the limited space, these two only will be considered. It does not matter so much what method is used in a war against mosquitoes and flies as it does how well we use the method adopted. A few years ago I started sheep-head fishing and after the sheep-head had repeatedly got my bait I asked an old fisherman when was the time to pull and he stated: "Just before he bites." This has been worth a great deal to me in fighting mosquitoes and flies, because if we wait until after all of the children are complaining of flies and mosquitoes and they have bitten our sleeping babies, it is rather late to "pull." Just as it is with the sheep-head, he has got the bait and gone. So we find, from a sanitation problem, that we must begin our work early and work in winter months as well as summer months, to combat these pests. In order to do this it requires a man, clothed with police authority, to make an inspection of all premises in and around your town; all drainage for mosquitoes should be completed by March first; all filth and trash to attract flies should be moved by this date, and our working department so organized that garbage could be removed daily from the business and residence sections and that all water not drainable could be emptied or treated every seven days. This the people will not do without an inspector going constantly over the premises with them at repeated intervals. In our town we use a book, with a carbon copy, and upon inspecting the premises we furnish a copy stating whether sanitary or unsanitary; whether any mosquitoes are breeding or not. By this method we encourage those whose premises are sanitary, by giving them a clean slip, and have a copy to serve us in case they are unsanitary and need prosecution. So, in order to handle the legal end, each town should have enacted a law against mosquitoes being allowed to breed on premises of its citizens or allowing a place where flies may breed or one that may be attractive to flies. We know

that more flies can be attracted with honey than with vinegar. So it is necessary, in sanitary work, to do away with the things which are attracting the fly, as well as to keep moved those things, principally stable manure, in which flies breed. With this in view we find no better remedy than unslacked lime liberally applied to their breeding places.

The fight against mosquitoes must be conducted somewhat differently, owing to their habitat, than the one against flies. We know that mosquitoes lay their eggs only in water. So there is no use looking under a dry plank to find a mosquito nest. No water, no mosquitoes. No mosquitoes, no malaria, no dengue, etc. It is before the first mosquito lays its eggs that we can do our best preventative work, because they multiply so rapidly after they commence laying it greatly increases the outlay of money expended, time and energy. We know that all mosquitoes do not carry malaria, dengue fever, and as far as we know, many species carry no disease. But we cannot satisfy our people by telling them that the mosquitoes they have will not harm them. So we go after all mosquitoes in our fight. This, we think, can best be done, first, by drainage; second, by emptying all containers about the premises which contain water for seven days; by oiling or some larvacides; by treating water that can neither be drained nor emptied. It is probably true that too much stress has been laid upon oiling to prevent mosquitoes breeding. This is easy to do and by using the wasted oil from the garages which is furnished by them, gratis, it is not so expensive. Yet, at the same time, it is doubtful whether or not it is effectual. In ponds or places where there is floatage and grass and in running streams it is of little or no value. In the standing vessels, such as fire barrels, we prefer five pounds of nitre to fifty gallons of water. This not only prevents the eggs, which are laid in the barrel, from hatching, but we find mosquitoes killed from lighting in this water due, possibly, to the acid. So it acts as a trap nest. No eggs hatched and some mosquitoes killed. The adult mosquito can be controlled largely by educating our children, as well as grown-ups, to look

after dark places and corners where the mosquito is hiding and swat them as they do the fly. So long as we have water for the mosquito to breed in, dark, shady places for them to hide in and blood for their sustenance, here in this climate, we are going to have the mosquito. By doing away with these things, which in many instances are unnecessary, we are not only making our place more sanitary, but we are making it less attractive to the mosquito, and they have sufficient instinct to go and stay where a more cordial welcome awaits them and where they are treated better.

In conclusion let us say: That sanitation problems must be guarded daily. Our work must be started early and in order to keep all the people in our fight we must make a dollar buy the maximum protection. Having things sanitary is the right direction for positive health. Health is our greatest asset. Without sanitation we do not expect health. Printers ink has been called a great serum. Properly applied it has been worth a great deal in all the fights connected with sanitation. Our best laws to guide us are the laws of nature. The physician is the best posted man in his community on sanitation problems. Can we truthfully say that we, as physicians, have been alert and are teaching our people regarding sanitation? If we cannot say this, then we will venture to say, that if the physicians will do this they will be serving their community and mankind best.

DISCUSSION ON PAPER OF DR. CHAMBLISS

Dr. T. F. Abercrombie, Atlanta: I wish to congratulate Dr. Chambliss on his excellent paper, but there are two points on which I differ a little bit. I will discuss those for a moment, and then take up the other phases of the paper, which are excellent.

He does not subscribe to the chlorination of water, but that has become so universal that we look on it almost as we do on small-pox vaccination. It is so effective that there is no excuse for any municipality not to do this. Dr. Chambliss made the statement that we need pure water, but that it is easily obtained from the earth and is contaminated afterward. There are very few places in this

State where the water can be depended upon. There are eighty-eight chlorin plants in the State now. In the cities in the United States that do not chlorinate their water their death rate was 19 per 100,000 a few years ago, while in 1924, where practically all were chlorinated, the death rate dropped to 3 per 100,000.

About the sewage. In a recent survey of the Ohio River district they found the water contaminated at least forty miles away from sewage.

I think it is well to bring up these points. The other portions of Dr. Chambliss' paper were excellent. He has given good advice, and I only wish to add that this section of the country is developing rapidly, and unless we give the population the health protection they deserve we will be failing in our duty.

STUDIES IN SCHOOL CHILDREN FROM A NEUROPSYCHIATRIC VIEWPOINT*

GEO. L. ECHOLS, M.D.

Assistant Physician, Georgia State Sanitarium

Milledgeville

Educators realize fully that there is a group of pupils in our schools who are unable, from defects or other causes, to appropriate, or take in, what our schools have to offer.

The problem is to study this group, child by child, each as an individual, and determine, if possible, why the expected progress is not made, and incidentally, to look for defects in those who are making reasonable progress. When the trouble has been located we have made some progress; however, the problem is not solved when we stop by saying the child is feeble minded, or has some physical or nervous disease. Full co-operation is necessary from the parents, teachers, family physician, dentist, civic clubs, charities, etc.

For the last few years a school clinic has been in operation in Elberton Public Schools. Nutrition has been studied, teeth looked after, tonsils removed, a nursing system established to look after children who become sick at

school, and to work out other nursing and social problems.

During the last nine months the writer has been spending one day each month studying deficient and referred pupils in this school. About 80 pupils were examined and some of them seen three or four times: necessitating that the work be done rather rapidly. Conditions seen that were apparently hindering the mental intake were noted as follows: unadjusted foreigners, hernias, thumb-suckers, ties, intestinal parasites, glandular imbalance, toxic thyroids, nutritional diseases, chorea and questionable psychosis. There were but few suggestions of syphilis and twenty blood Wasserman examinations proved negative.

We think it advisable to outline a few cases briefly:

Boy, aged 14: entered school at 7½, made his grades to the fifth, which he repeated, and now in the sixth grade doing deficient work. Grandmother and half uncle died from pellagra. This pupil is very peculiar in his eating, taking no milk or meats, and eats hard cooked eggs occasionally. Prefers carbohydrates and eats much sweets. While there was no pellagrous eruption that condition was strongly suspected. Dieting was outlined to the mother and boy was urged to take a well balanced diet, regardless of his own inclinations, and the case referred to the family physician. Two years schooling has been lost in this case, apparently from nutritional disease.

Boy, 16: well developed and muscular; did good school work up until seventh grade, at which time he had developed an inguinal hernia, to which was applied a truss which was ill-fitting and failed to close the ring. Was forced to give up athletics, and, through a false modesty, did not tell the athletic director and his schoolmates why. Hernia would come down in the classroom and be painful, and he could not replace same, because girls were present. The athletic director taught biology and this pupil developed ideas that this teacher was not his friend and was really against him because he did not enter into athletics and play on the basket-ball team; became irritable, obstinate and seclusive and was making very low marks in school work. In a confidential talk this boy blames the her-

*Read before the Medical Association of Georgia, Albany, Ga., May 12, 1926.

nia for the whole trouble. He realizes that he should have told the athletic director and had a clear understanding. Also, for the last two years he has had much actual discomfort and pain, which interfered with his studying and resulted in low marks. When the case was explained to the father he agreed readily to a herniotomy.

Girl, aged 12½, mental age about 8½, entered school September, 1920; father works irregularly, hangs around the depot; in police court several times for disturbances at home. Mother feeble minded. This girl spent two years in the first grade, one year in the second grade, two years in the third grade and was doing deficient work in the fourth grade. Books and tuition are furnished by the School Board. In the schoolroom she is restless, inattentive and quarrelsome and is showing delinquent tendencies of a sexual nature; and, more than likely, will lead her young feeble minded sister astray. This is a case for the feeble minded institution.

Boy, 11: appears to have normal intelligence; parents separated; father heavy drinker; mother is a poor manager and says she is unable to control this child who is a general disturbance in the schoolroom, plays truant, lies, steals, stole money, stole an automobile and is a leader and planner among other bad boys. He has become a police problem; has been tried and given a suspended sentence in the State Reformatory School.

Boy, aged 16: pale; poorly nourished; stammers; unsteady in Romberg; pulse about 170 during examination; noticeable fine tremors of fingers; apparently some exophthalmos and thyroid gland slightly enlarged. Did fairly good work through the fourth grade; repeated the fifth grade and was passed, though his work was very poor. Now *repeating* the sixth grade and making deficient ratings. This boy was found to be very talkative, irritable, obstinate, restless and appears psychotic. This toxic thyroid case was referred to the family physician.

Two cases of chorea were seen. Both cases were doing poor school work and have been referred to the family physician.

During the present term in the Elbert County schools one girl, thirteen and a half

years old, in the sixth grade, developed dementia praecox and was committed to the Georgia State Sanitarium. Another fourteen-year old boy, who had been doing fairly good school work, was noticed last summer as sitting in one position, gazing, losing interest and showing emotional deterioration. On returning to school last fall was found to take no interest whatever. A diagnosis of dementia praecox was made. He appeared harmless and at this time is still being kept at home and cared for by his relatives.

Many other interesting cases could be cited.

The main idea in undertaking this work is to get back into the pre-insane stage and make some first hand study of the conditions leading to mental disease.

The uncomplicated feeble-minded group requires special consideration.

About 50% of the feeble-mindedness is due to birth injuries and infections in the prenatal stage and in infancy and childhood, and not due to heredity.

Feeble-mindedness in our public school system is a big problem.

The vast majority of feeble-minded children are harmless; however, they are led into vices easily—girls into sex delinquency and venereal disease spreading. Both sexes need every protection to prevent them from acquiring bad habits and being led into simple vices. It is more difficult for them to unlearn the bad than to acquire the good.

Institutional care is necessary in special cases; however, this only includes about 10% of the group. The vast majority should be cared for in the homes and carried in our school system as far as their intelligence will permit.

The preceding was written from superficial studies made hurriedly. Only the surface has been scratched. The problem is to learn more of the facts concerning the group of school children who, from physical, neurological, or mental defect, are unable to grasp what our educational system has to offer. Why does the child fail and how much of this failure is a medical problem?

DISCUSSION ON PAPER OF DR. ECHOLS

Dr. J. N. Brawner, Atlanta, Ga.: Dr. Echols' paper is a very practical one and on

a subject that is not only interesting to the neurologists, but to the general practitioners as well. One point that I would like to raise is, the relation between mental deficiency and hereditary syphilis. There is no doubt that this is quite common even when the blood Wasserman in the patient is negative.

One important point that Dr. Echols brought out is, that about 50 per cent of cases of mental deficiency are acquired. In some of these, the mental deficiency is due to birth injury, but there is no doubt that the majority are due to post infectious conditions which occur in early life, leaving a certain amount of brain injury. We often see this condition following encephalitis in children. Many of these postencephalitic deficiency cases may not show any changes that can be detected through a physical examination, but they show as the remains of the disease—emotional, intellectual and behavior defects.

Another point on which Dr. Echols did not lay very much stress is, *mental retardation*—a condition which is not due to any organic disease of the brain, or to any defect in the hereditary make up, but to some disease in some other part of the body, such as infected tonsils, bad teeth, hook worm disease, malaria or certain environmental conditions which retard the proper mental development of the child.

Another condition which often causes mental retardation is defective food. Many children are undernourished and do not get the food elements in the proper proportion: and in many parts of the country, as is now well known, the diet is deficient in iodine and calcium salts. In mental retardation cases the food that the child has been eating should be considered very carefully.

Experience shows that only about 5 per cent of defective children should be placed in institutions. Ninety-five per cent, through proper training in homes and in special schools, can be taught to earn their own living. Special schools and special classes in every community should be established for the training of these children. They cannot take a high education, but they may be taught to do manual work and many of them make fair citizens in a community.

Dr. H. D. Allen, Milledgeville: I enjoyed Dr. Echols' paper greatly, and think he is to be commended for the fact that he is a pioneer in the work. Dr. Echols, with several others of the Sanitarium staff, have been going out on their own initiative, with little or no expense to others, and giving this service to the counties that have requested it. This is a

problem we should all consider carefully. When we think of Dr. Echols going to as small a county as Elbert County and finding five bad cases there out of eighty patients examined, we would find that throughout the State it would require an institution for about 1,500 patients, whereas we have accommodations for only about 300 in the State. As I understand it, many of these patients do not have to go to institutions, and I believe that any general practitioner, without any psychiatric training at all, can find, if he looks for them, such obvious maladjustments in the children that the simplest advice or general treatment he can give will prevent the development of psychosis for which they will have to be committed to the institutions for the care of the insane.

Dr. T. F. Abercrombie, Atlanta: Dr. Echols has brought to our attention a very practical subject. He made the statement that 50 per cent of the feeble-mindedness is not hereditary. I am interested primarily in that 50 per cent. I am satisfied that we are trying to educate thousands of children in Georgia today who are not able to take this education, from a mental standpoint. There are several classes in the State now for what is known as "subnormal children." A study was made of one of these classes in which there were about thirty-three children. That study showed that three were super-normal, ten normal, and the balance probably subnormal. This subject needs serious consideration by the medical profession, and by the general practitioners. If we have this percentage in a small group what have we throughout the State? Those three children were in that class because their studies did not keep them busy, and to get rid of them the teacher put them into the class with the subnormal.

Dr. N. M. Owensby, Atlanta: Dr. Echols' paper indicates that he has given a great deal of attention and study to his subject and it is seldom that our association has the privilege of listening to such a thorough paper. This situation described by him is one which every physician of the state should familiarize themselves with because every child showing nervous symptoms or mental retardation is a potential psychopath and prophylactic measures would in some cases prevent a complete mental breakdown. At present there are over fifty thousand admissions to the mental hospital of this country each year and the rate is increasing. Dr. Echols has well pointed out many of the environmental conditions which often play a most important role in the causation of mental disturbances and I

would suggest that the physicians pay more attention to these environmental conditions and correct them whenever possible. There are many other factors which are overlooked and it would be well if the general practitioner referred these cases to the psychiatrist for examination.

Dr. Dunbar Roy, Atlanta: I have been amazed that none of the speakers who have followed the essayist, or the essayist himself, have mentioned the eyes as the frequent cause of mental deficiency in these children. In my experience in examining children for diseases of the eye, ear, nose and throat I have found that in very few instances the mutual condition was dependent upon the teeth, tonsils, gastro-intestinal conditions, and so on, but that eight out of ten have been due to trouble with the eyes. In one case, that of a Russian-Jewess, aged eight, the child was brought in because she could not get from the third to the fourth grade. She had been in the same grade for three years, and they could not find out what was the trouble. She did not know her letters, but I found a high degree of astigmatism. Her eyes were corrected by glasses, and in three years she led her class and yet she had been considered a defective. Gentlemen, you cannot realize how much of this trouble may be due to the eyes. If you will go to the bottom of it, in the large majority of cases you will find some ocular defect, and if that is corrected you will find that the child will improve rapidly and advance to a high grade.

Dr. George L. Echols, Milledgeville, (closing): In regard to what Dr. Roy has just said, that phase was unintentionally omitted. In the work I have been doing an ophthalmologist has seen to it that every child has been examined and glasses fitted wherever needed.

Just a word in regard to the studies in school children. This is going to be done, and I will tell you why. School superintendents and school teachers wonder why certain children do not make the progress they should; why their mental intake is not normal. They are anxious to find out why, and they want these children examined. I think you should always remember in examining a child in school that you are examining some other doctor's patient. You should always keep that doctor in mind, always refer your findings to him, and give him any suggestions he may ask. Work with the family physician in all school work.

SOME OBSERVATIONS ON LYMPHOID TISSUE IN THE NASO-PHARYNX*

JOHN T. KING, M.D.

Thomasville

In 1870 Wilhelm Meyer published his treatise, giving the results of his original researches on the glandular structures of the naso-pharynx, marking a distinct advance in our knowledge of the pathology and treatment of diseases of these structures. We have no certain knowledge of the function of this lymphoid tissue. Naturally enough this has led on the one hand to a great variety of function theories and on the other hand to theory of no function at all. There is not the slightest reason to believe them without function. The only theory advanced is what is known as the hemopoietic theory. This relates as the hem o poi et'ic theory. This relates to the production of lymphocytes in the germinal center of the lymphoid follicles. The origin of the mother cells, the lymphoblast is still an argued question. At any rate it has been demonstrated that by mitotic division of certain of the cells in the centers of the follicles of the lymph glands, the end results are the small lymphocytes. It is also a suggestive fact that the lymphoid nodules of the body show their greatest activity during the growing years of the child; and that this activity diminishes or in many nodes ceases altogether at or about puberty. It is doubtless true that one of the chief functions of the lymph nodules is the production of lymphocytes for the blood; and in this service the tonsillar tissue plays an important, though by no means, an indispensable part. It should be remembered that these lymph glands are physiologically normal under healthy conditions, and require treatment only when they become the seat of hyperplastic enlargement.

Etiology: It is essentially an affection of child life, more common between the ages of three and twelve years. In a small percentage of infants the disease appears soon after birth

*Read before the Thomas County Medical Society, Thomasville, Ga., August 19, 1925.

and interferes with respiration and nursing, sometime necessitating an operation as early as four months. Heredity is an important factor. One rarely fails to find a history of adenoids in one or both parents, and it is often necessary to operate on an entire family of children. Dampness and sudden changes in the climate, by inducing inflammation of the upper air passages, tend secondarily to favor hyperplasia. Any infection and engorgement of the nasopharyngeal mucosa often marks the beginning of permanent hyperplasia of the pharyngeal tonsil. Nasal obstruction will produce this engorgement, thereby producing a hypertrophy. While adenoid enlargement is most commonly met between the age of 5 to 15 and more rarely between 15 to 20 it occasionally remains to old age, the affection occurring about equally in both sexes. The engorgement usually reaches its height before the fifteenth year after which there is a moderate tendency to atrophy.

Diagnosis: The clinical picture of a typical case is characteristic. The listless expression, open mouth, pinched nose, thick lips, and a depression of the superior maxilla about the nasal orifices are sufficient to make the diagnosis clear. They may suffer from conjunctivitis and inflammation about the margin of the lids. The nostrils are usually filled with thick mucus, or mucopus which is difficult to remove on account of the patients inability to blow the nose. The lymphatics behind or in front of the sterno-mastoid muscle often become enlarged. The chain in front usually enlarge when the tonsils are infected, those behind when the adenoids are infected. There is a tendency to protrusion of the sternum, with more or less flattening of the chest wall.

Subjectively, there is a history of mouth-breathing, snoring, restless sleep, night terrors, dull mentality, anemia, frequent infections and cold which are prone to induce attacks of bronchitis, laryngitis, and recurrent purulent otitis media. The symptoms can be classified into three distinct groups: First, symptoms resulting from obstruction of nasal respiration; second, symptoms result-

ing from inflammatory changes and secondarily involving the mucosa of the nasal cavities, middle ear, pharynx, larynx, and bronchial tubes; and third, reflex neuroses.

Obstructed nasal respiration is present—at least to a mild degree—in all individuals who suffer from adenoids, and almost without exception they exhibit to a slight degree the typical changes in facial expression. Wide open mouth-breathing while awake occurs only in the severest cases, but the lips and jaws are slightly separated most of the time in mild cases. The upper lip usually protrudes. When asleep the mouth is usually wide open, respiration is labored, snoring is common, and night terrors and outcries are frequent. Adenoid patients are intensely restless during sleep. The prolonged oxygen starvation, which results from the abnormal and obstructed respiration, is largely responsible for their retarded physical development, persistent anemia, the apparent stupidity and lack of mental concentration. In severe cases, which are unrelieved by timely operative procedure, there is a marked tendency to deformity of the superior maxillary bone, causing them irregularities of the teeth, recession about the nasal orifices, and contracted V-shaped palatal arches.

Inflammatory symptoms: Children suffering from adenoid hypertrophy are particularly subject to acute infections of the nasopharynx. All acute intra-nasal inflammation, especially those which accompany the exanthemata, grippe, etc., are prolonged and more deep-seated. Furthermore, such attacks may induce a persistent rhinitis, pharyngitis, laryngitis and bronchitis, as well as an acute or chronic purulent otitis media. Recurrent colds and persistent coughs in a young child should invariably lead to a suspicion of adenoids. Statistics show that about 65% of children with hypertrophied adenoids have either a catarrhal or purulent otitis media, which if uncorrected will more or less impair hearing.

Reflex neurosis: In addition to the nocturnal symptoms just described, epileptiform convulsions are occasionally noted and are more common at night. Nocturnal inconti-

nence of urine is also an occasional reflex disturbance. Stammering, hay fever and asthma are aggravated if not caused by adenoids. Mental sluggishness is often noted, but this is more often apparent than real.

Diagnosis is based upon the symptoms before stated, and verified by anterior or posterior rhinoscopy. Digital examination occasionally has to be resorted to, but should only be performed when posterior rhinoscopy cannot be done, as it is very painful and forever destroys the confidence of the little patient. By anterior rhinoscopy the mass can occasionally be seen. Posterior rhinoscopy always brings the adenoid mass into view, and after gaining the confidence of the patient, can easily be done.

The treatment is purely surgical. Early recognition and prompt thorough removal should invariably be the rule. In the majority of the cases the operation is performed in conjunction with the removal of the tonsils. And just here I wish to mention the fact that the tendency, both on the part of the medical profession and the laity, is to underestimate the gravity of this operation when properly performed. It is attended with severe hemorrhage in most of the cases—more severe than that which occurs in many major operations. And when possible the operation should be performed in a hospital, where the patient should remain for from twelve to twenty-four hours, thus avoiding the dangers of secondary hemorrhage or the complications arising from the anesthetic.

PROCEEDINGS OF THE GENERAL MEETINGS OF THE SEVENTY-SEVENTH ANNUAL SESSION OF THE MEDICAL ASSOCIATION OF GEORGIA, ALBANY, MAY 12, 13, 14, 1926

FIRST GENERAL MEETING

WEDNESDAY, MAY 12

The Association was called to order at the City Auditorium, Albany, at 10:00 A.M., by the President, Dr. Frank K. Boland, Atlanta.

The President invited all the Ex-Presidents in the audience to come to the stage, and declared the Seventy-seventh annual session of the Medical Association of Georgia duly opened.

Invocation: Dr. M. A. Clark.

Almighty God, our Heavenly Father, we invoke Thy blessing upon us this morning. We who are humble followers of the Great Physician in the example He set for us many years to follow. Grant that everything that is done may be to the honor of His name, that there may be complete forgetfulness of self, and grant, Oh Lord, that our profession may be the greatest on earth, because we forget ourselves and do all things for the good of our fellowmen.

We ask this in Thy name. Amen.

The President: Following the invocation we feel that it would be well to listen to the reading of the Oath of Hippocrates. I will request Dr. Mooney of Statesboro, to read this Oath to you.

Dr. Mooney then read the Oath, which was printed on the inside cover of the program.

Address of Welcome: Dr. A. H. Hilsman, Albany.

Mr. President, Ladies and Gentlemen, Fellow Members of our State Association:

While all of Albany's 18,000 people have a genuine feeling of true hospitality for the doctors of Georgia, who are honoring us with their presence today, it is but natural that the doctors of Albany should feel a little deeper interest, and should have in their welcome a little truer understanding than others. It is for this reason that I have been selected to extend to you the welcome, not only of the doctors, but of a community in which warm-hearted hospitality finds a gracious and a spontaneous expression.

We are glad to have you. We have looked forward to your coming with a pleasure akin to the joy with which the anticipation of Christmas fills the heart of a child for weeks in advance. I hope all of you are not so old that you have forgotten those joys.

The doctors of Albany realize how difficult it is for you to get away from your practice, and how seldom and how short the nature of your calling makes your vacations. We have planned that from your visit to Albany you may derive the profit to repay, and the pleasure to justify you in being away from your work. We want you to get from the meetings of the convention information which will prove valuable in your work, and we want you to find in the entertainment features that have been provided the diversion and pleasure which no class of men more richly deserve or more surely need than the doctors. If you do not enjoy yourselves in Albany we shall be more disappointed than you possibly could be.

Albany has been very much in the public eye recently on account of her exceptional health record. Dr. Royal S. Copeland, former health commissioner from New York, after a personal investigation, declared that Albany had the lowest death rate of any city of its size in America. Albany's health record has been traced to many causes—the climate, the sanitary safeguards of the City, the rigid inspection of food, the restrictions thrown around the City's milk supply, and the excellence and purity of our artesian water. But so far, I am both surprised and disappointed to have to admit, no one ever has hinted that it might be due to the skill of Albany's physicians. This shows that physicians, as well as prophets, are sometimes without honor in their own community. Albany has the lowest fire loss in America, and they give the firemen credit for it, but no one seems to have thought of the doctors in connection with the low death rate.

I will conclude by telling you a negro story which illustrates the kind of welcome I am trying to extend to you.

A man who had a large number of fine chickens went out the other morning and found that his hen house had been robbed and that about half of his chickens were gone. He had a strong suspicion that a negro named Ben Jones, living nearby, had been the thief. So he wrote Ben a letter of warning, as follows:

"Ben Jones,
City.

If you don't leave my chickens alone you are going to wake up some morning and find yourself dead.

Anonymous."

When Ben read the letter he rushed down to police headquarters and, approaching the sergeant at the desk, said: "Capt'n Boss Man, I'se got to have police protection. I done got a unanimous letter threatening my life."

"Let me see your letter, Ben," the sergeant replied.

Ben handed over the letter and the sergeant read it.

Turning to Ben with a smile he said, "Ben, you don't need police protection, all you need is to let this man's chickens alone."

"But Capt'n, Boss," pleaded Ben, "Dis am a unanimous letter and I don't know whose chickens it is I'se got to let alone."

The welcome I am extending you is a unanimous welcome.

Response to Address of Welcome: Dr. J. M. Poer, West Point.

Mr. President, Ladies and Gentlemen, and

Fellow Colleagues:

It is a great pleasure for us to be in Albany this morning. Just a year ago we expressed the opinion that we felt a little dubious about the trip to Albany. For a number of years there has been a feeling in the Association that it is so large that few cities can entertain it. When an enthusiastic bunch of citizens appeared before the Association a year ago and made such a convincing argument we decided at once to come here, but there was still some feeling that they could not keep their promises. They had three good reasons. Your Rotary Club said come, your Chamber of Commerce said come, and last of all the doctors of Albany said come, and we felt those were three good reasons, and that you might be able to put it over. We are here, and glad to be here. We felt convinced that they had something back of them that gave them their pep and enthusiasm, and we find them in the same spirit today.

We are not here to accept something for nothing. The Medical Association of Georgia has a great scientific program in store for you. These men have spent much time on their program, they are full of their subjects, and if you will come and hear them you will certainly have something well worth your while.

Report of the House of Delegates: Dr. Allen H. Bunce, Secretary.

Mr. President, Ladies and Gentlemen, and Fellow Members:

As you all know, the House of Delegates is the business part of our organization, but it only becomes so by the approval of the Association as a whole. Because of the large amount of business before the House it will be impossible to bring all these matters out in detail at this time, but I will give you a summary, and if there are any questions we shall be glad to answer them.

(Dr. Bunce then reported briefly the action of the House of Delegates at the first and second meetings. Cf. published report.)

Upon motion duly seconded and carried this report was adopted as read.

Report of Committee on Arrangements:

Dr. A. H. Hilsman announced the arrangements that had been made for the annual banquet, golf and automobile rides.

Dr. W. A. Mulherin announced that the Alumni dinner of the Georgia State University would be held at 6:00 P.M., and Dr. J. A. Redfearn announced that the Alumni dinner of Emory University would also be held that evening at 6:00 o'clock.

Scientific Program:

The President announced that a telegram

had just been received from Dr. J. H. Baxter, the first man on the program, stating that it was impossible for him to be present.

Dr. J. W. Chambliss, Americus, read a paper entitled "Sanitation Problems of Small Cities." Discussion by Dr. T. F. Abererombie, Atlanta.

Dr. N. M. Owensby, Atlanta, read a paper entitled "Peculiarities of Human Behavior." Discussed by Drs. S. T. R. Revell, Louisville; Louis F. Lanier, Rocky Ford; J. N. Brawner, Atlanta; and in closing by Dr. Owensby.

Dr. George L. Echols, Milledgeville, read a paper entitled "Studies in School Children from a Neuropsychiatric Viewpoint." Discussed by Drs. J. N. Brawner, Atlanta; H. D. Allen, Milledgeville; T. F. Abererombie, Atlanta; N. M. Owensby, Atlanta; Dunbar Roy, Atlanta; and in closing by Dr. Echols.

Dr. E. Bates Block, Atlanta, read a paper on "Basal Metabolism in Amyotonia Congenita."

Dr. J. C. Patterson, Cuthbert, read a paper entitled "Report of a Few Cases Illustrating the Fallacy of Indigestion as a Diagnosis." Discussed by Drs. W. H. Myers, Savannah; W. R. Dancy, Savannah; L. C. Allen, Hesh-ton; and in closing by Dr. Patterson.

As this completed the program for the morning, on motion duly seconded and carried, the Association adjourned at 12:20 to reconvene at 2:30 P.M.

FIRST DAY—AFTERNOON MEETING

The Association reconvened at 2:30 P.M., and was called to order by the President, Dr. Frank K. Boland, Atlanta.

Dr. Linton Gerdine, Athens, read a paper on "The Importance of Child Welfare Work to a Community." Discussed by Drs. W. A. Mulherin, Augusta; J. P. Bowdoin, Adairsville; George L. Echols, Milledgeville; and in closing by Dr. Gerdine.

Dr. R. G. McAliley, Atlanta, read a paper entitled "Feeding the Normal Infant." Discussed by Drs. R. L. Miller, Waynesboro; Joseph Yampolsky, Atlanta; B. B. Gay, Atlanta; Benj. Bashinski, Macon; W. A. Mulherin, Augusta; and in closing by Dr. McAliley.

Dr. Benjamin Bashinski, Macon, read a paper on "Toxin-Antitoxin." Discussed by Drs. W. L. Funkhouser, Atlanta; J. M. Poer, West Point; Linton Gerdine, Athens; T. F. Abererombie, Atlanta; J. W. Chambliss, Americus; J. P. Bowdoin, Atlanta; R. L. Miller, Waynesboro; and in closing by Dr. Bashinski.

Dr. Paul Eaton, Augusta, read a paper entitled "Modern Conception of the Infectivity of Contagious Diseases." Discussed by Drs.

J. P. Bowdoin, Atlanta; Thos. Bolling Gay, Athens; W. N. Adkins, Atlanta; Joseph Yampolsky, Atlanta; W. A. Mulherin, Augusta; and in closing by Dr. Eaton.

Dr. W. L. Funkhouser, Atlanta, read a paper on "The Use of Dextrose for Children, and a Pleasant Method of Administration." Discussed by Drs. J. F. Mixson, Valdosta; W. A. Mulherin, Augusta; Henry R. Slack, LaGrange; S. T. R. Revell, Louisville; T. D. Walker, Macon; and in closing by Dr. Funkhouser.

As Dr. A. J. Waring and Dr. J. A. Ward were unable to be present their papers were passed.

Dr. R. L. Miller announced that the Georgia Pediatric Society had invited all pediatricians to meet with them at the New Albany Hotel at the close of the evening meeting.

The Secretary again announced the Alumni Associations' dinners, and the clinics for the following day.

On motion the Association adjourned at 5:15 to reconvene at 7:30 P.M.

FIRST DAY—EVENING MEETING

The Association reconvened at 7:40 P.M., and was called to order by the President, Dr. Frank K. Boland, Atlanta.

Drs. T. C. and H. M. Davison, Atlanta, presented a paper and lantern slide demonstration entitled "Basal Metabolism Rate in Toxic Goiter." Discussed by Drs. Charles E. Waits, Atlanta; E. C. Thrash, Atlanta; and in closing by Drs. T. C. and H. M. Davison, Atlanta.

Dr. F. M. Johnson, Atlanta, read a paper entitled "Certain Problems in the Early Diagnosis of Cancer of the Mouth Region." Discussed by Drs. J. L. Campbell, Atlanta; George L. Echols, Milledgeville; and in closing by Dr. Johnson.

Dr. Theodore Toepel, Atlanta, read a paper on "The Painful Heel." Discussed by Drs. Henry M. Michel, Augusta; William A. Newman, Macon; and in closing by Dr. Toepel.

Dr. O. D. Hall, Atlanta, read a paper entitled "Radium Treatment for Cancer of the Cervix: Report of Cases." Discussed by Drs. L. D. Parry, Thomasville; J. F. Denton, Atlanta; and in closing by Dr. Hall.

Dr. E. D. Highsmith, Atlanta, read a paper entitled "Surgical Correction of Facial Deformities." Discussed by Dr. C. W. Roberts, Atlanta, and in closing by Dr. Highsmith.

On motion the Association adjourned at 10:00 P.M., to reconvene at 9:00 A.M., Thursday.

THURSDAY, MAY 13, 1926

SECOND DAY—MORNING MEETING

The Association reconvened at 9:15, and

was called to order by the President, Dr. Frank K. Boland, Atlanta.

Dr. V. P. Sydenstricker, Augusta, read a paper on "Endemic Typhus Fever." Discussed by Drs. James E. Paullin, Atlanta; Hal M. Davison, Atlanta; J. M. Poer, West Point; Eugene E. Murphey, Augusta; and in closing by Dr. Sydenstricker.

Dr. R. S. Leadingham, Atlanta, read a paper on "The Diagnosis and Treatment of Tropical Sprue." Discussed by Drs. J. C. Metts, Augusta; James E. Paullin, Atlanta; L. C. Allen, Hoschton; and in closing by Dr. Leadingham.

The President: Before introducing our guest I wish to say a word about the Southern Medical Association. I think there are four organizations to which we should all belong: the County Medical Society, the Medical Association of Georgia, the American Medical Association, and the Southern Medical Association. As you know, the Southern Medical Association will hold its meeting in Atlanta, beginning on November 15. The Secretary of the Association, Mr. Loran, informs me that we have 600 members in Georgia, which is almost 50 per cent of the membership of the Medical Association of Georgia.

If you do not belong, see the young lady who is taking applications, join the Association, get your badge and put it on. We are planning for the best meeting the Southern Medical Association has ever had, and we hope to have a thousand members from Georgia in Atlanta next November.

We are honored in having as our guest this morning one of the members of the Tulane University staff, and the president of the Southern Medical Association, who will speak to us on the subject of "Specific Treatment of Malaria," Dr. Charles C. Bass, New Orleans.

Dr. Bass expressed his appreciation of the invitation to meet with the Medical Association of Georgia, and endorsed everything Dr. Boland had said regarding membership in the Southern Medical Association. He then addressed the Association on "Specific Treatment of Malaria."

President Boland thanked Dr. Bass on behalf of the Association for his courtesy in addressing them, and for his excellent paper.

Vice-President W. R. Dancy then took the Chair.

Dr. Lewis M. Gaines, Atlanta, read a paper entitled "Unusual Manifestations of Chronic Malarial Infections." Discussed by Drs. J. O. Elrod, Forsyth; Jarvis G. Dean, Dawson; Joseph Yampolsky, Atlanta; J. M. Anderson, Columbus; Louis C. Rouglin, At-

lanta; T. F. Abercrombie, Atlanta; Jack R. McMichael, Quitman; Thomas E. Rogers, Macon; Sterling P. Holland, Blakely; A. J. Mooney, Statesboro; and in closing by Dr. Gaines.

Dr. Eugene E. Murphey, Augusta, presented a paper entitled "Cacodylate of Soda in Malaria." Discussed by Drs. M. A. Clark, Macon; Henry R. Slack, LaGrange; R. L. Miller, Waynesboro; Charles C. Bass, New Orleans; and in closing by Dr. Murphey.

Dr. Dancy: The hour has arrived for the address of our President. Gentlemen, please give your attention to the address. It is particularly desired that we have no passing in and out of the room while it is in progress.

Dr. Boland then delivered his presidential address, entitled "The Purposes of the Association." In accordance with custom this address was not thrown open to discussion.

Dr. Dancy: The President's address concludes the program for the morning. I trust that all will profit by his words of wisdom.

On motion the Association adjourned at 12:45 to reconvene at 2:30 P.M.

SECOND DAY—AFTERNOON MEETING

The Association reconvened at 2:35 P.M., and was called to order by Vice-President H. M. Fullilove, Athens.

Dr. Zach W. Jackson, Atlanta, read a paper entitled "Conjunctivitis Tularensis: Case Report." Discussed by Drs. J. F. Mixson, Valdosta; Edgar D. Shanks, Atlanta; James H. Hodges, Hapeville; and in closing by Dr. Jackson.

Dr. Dunbar Roy, Atlanta, read a paper on "Some Personal Observations in Reference to Deafness." Discussed by Dr. B. H. Minchew, Waycross; Henry R. Slack, LaGrange; E. Bates Block, Atlanta; James C. McDougall, Atlanta; Louis C. Rouglin, Atlanta.

Dr. Charles H. Richardson, Jr., Macon, read a paper entitled "Chronic Endocervicitis and Its Treatment." Discussed by Drs. C. H. Watt, Thomasville; Cleveland Thompson, Millen; A. D. Little, Thomasville.

President Boland now took the Chair, and said: Some time ago a resolution was passed that the President appoint two members of our Association to visit various other State Association meetings. This was done and these gentlemen will make their reports before the House of Delegates tomorrow morning. We appointed Dr. Minchew and Dr. Touchton to visit the Florida Association. Today we are honored by having a delegate here from Florida, and I will ask Dr. Minchew to introduce him to you.

Dr. Minchew: I wanted this distinguished honor to go to Dr. George Touchton of Sa-

vannah, and if he is here I wish he would come forward.

Last week Dr. Touchton and I went to visit the Florida State meeting, and we had a most enjoyable time. While we were there we met the doctor who comes to us today as a delegate from the State of Florida. He was a friend of Dr. Touchton's, but I had met him also, and I wish to tell you that he is making a great reputation in Florida. He lives near the Georgia border, but I do not think this is responsible for his reputation in Florida. He is making his reputation in spite of living in Florida, and he was largely responsible for our delightful visit to Florida.

I take great pleasure in introducing Dr. J. C. Davis of Quincy, Fla.

Dr. Davis: Mr. President, Fellows of the Medical Association of Georgia, Ladies and Gentlemen:

We found no barriers here, and walked right in. It is hard to tell where Georgia stops and Florida begins. I am a more or less graduate of the Emory University, married in Atlanta, and migrated to Florida. We certainly appreciated your sending Dr. Minchew and Dr. Touchton to us to bring us greetings, and I am here today to return your courtesy.

The scientific program was then resumed.

Dr. E. C. Davis, Atlanta, read a paper entitled "The Surgical Clearing House." Discussed by Drs. Kenneth McCullough, Waycross; J. M. Barnett, Albany; R. M. Harbin, Rome.

Dr. Ralph H. Chaney, Augusta, read a paper entitled "Some Essentials in Good Surgical Practice." Discussed by Drs. Arthur D. Little, Thomasville; Julian K. Quattlebaum, Savannah; and in closing by Dr. Chaney.

Dr. R. M. Harbin, Rome, read a paper entitled "Gall-bladder Surgery, with Reference to the Unrelieved Cases." Discussed by Drs. William H. Goodrich, Augusta; Ralph H. Chaney, and in closing by Dr. Harbin.

As Dr. L. W. Grove was unable to be present his paper was passed.

On motion the Association adjourned at 5:30 P.M. to reconvene at 9:00 A.M., Friday.

MEETING OF DISTRICT AND COUNTY SOCIETY SECRETARIES

The Secretaries of District and County Societies met at 5:40 P.M., and were called to order by President Boland.

Those present were:

R. L. Miller, Burke County.
J. N. Dorminy, Crisp County.
D. C. Kelley, Gwinnett County.
H. D. Allen, Jr., Baldwin County.
Cleveland Thompson, Jenkins County.

Charles A. Greer, Third District Society.
W. J. Hutchins, Vice-Councilor Ninth District.

P. O. Chaudron, Polk County.
G. Y. Moore, Randolph County.
S. A. Boland, McDuffie County.
J. V. Rogers, Grady County.
J. B. Pitts, Fifth District Society.
G. J. Dillard, Muscogee County.
A. A. Morrison, Chatham County.
V. O. Harvard, Councilor Third District.
Logan Thomas, Terrell County.
L. S. Osborne, Ben Hill County.

The conditions and problems in the various societies were informally discussed, and the meeting was declared adjourned at 6:30 P.M.

The Annual Banquets of the Medical Association of Georgia, and of the Ladies Auxiliary were held on Thursday evening, at the Gordon and the New Albany Hotels. Dr. M. A. Clark was Toastmaster at the banquet of the Association, and Dr. J. W. Palmer presented the "Badge of Service" to President Boland. The banquets were followed by a dance at the Elks Lodge rooms.

FRIDAY, MAY 14, 1926

THIRD DAY—MORNING MEETING

The Association reconvened at 9:15 A.M., and was called to order by the President, Dr. Frank K. Boland, Atlanta.

Dr. George C. Niles, Atlanta, read a paper entitled "Clinical Results Attained in Five Thousand Non-Surgical Gall-Tract Drainages." Discussed by Drs. W. R. Dancy, Savannah; W. Wilbur Blackman, Atlanta; J. M. Poer, West Point; Seale Harris, Birmingham; and in closing by Dr. Niles.

The President: We have just received a telegram from the Iowa State Medical Society, which is celebrating its Diamond Jubilee Meeting, congratulating us and conveying best wishes.

Dr. W. R. Dancy: I move that a telegram be sent congratulating the Iowa State Society upon their Diamond Jubilee Meeting, and expressing all good wishes to them.

Motion seconded and unanimously carried.

Dr. Thomas E. Rogers, Macon, read a paper on "The Treatment of Diabetic Coma." Discussed by Drs. Guy J. Dillard, Columbus; J. A. Redfearn, Albany; and in closing by Dr. Rogers.

The President: Last year at the meeting in Atlanta there appeared before the Association a doctor whom I first knew as a red-headed pitcher on the University of Georgia baseball nine, and a wonderful pitcher he was—one of the best the University ever had. Now he is a leading physician in Southern Georgia. This doctor made what we consid-

ered extravagant claims for Albany as a convention place. We had some doubt whether he could do all he claimed, but I wish to say that Albany has certainly made good in entertaining the Medical Association of Georgia. The House of Delegates has adopted a resolution thanking the Dougherty County Medical Society, and the doctors and other citizens of Albany, but I wish to take this occasion, when we have a larger audience than we had then, on my own account, to thank the Albany people for what they have done for us. I say this as an introduction to Dr. J. A. Redfearn of Albany, who will introduce our distinguished visitor.

Dr. Redfearn: If I had one more game to pitch this would be another winning game. Our President told me a few minutes ago that I would be called on to present our distinguished visitor, and that I should get what I wanted to say in mind. One word occurred to me, and if only one word was ever useful that one word which, I think, describes our distinguished guest is kindness. He is kind always, first toward his patients, next to his brother physicians. Every doctor in the Southern states received an earnest invitation from one to three times a year to come to his clinic in Birmingham, as his guest, several years ago for the study of diabetes. Dr. Rogers and I happened to go at the same time; Dr. Gray of Augusta, was also there, so we know Dr. Harris personally because of going there and getting so intimately in contact.

It is my pleasure to present to you Dr. Seale Harris of Birmingham, brother of our Senator Harris, and who is also a son of Georgia. (Applause.)

Dr. Harris: It warms the cockles of my heart to receive such an introduction, and the applause that makes me feel that you are glad I am here. I am delighted to be here, because I feel that I am at home in Georgia. I recall several years ago, on the occasion of the meeting of the Southern Medical Association in Richmond, the Governor in welcoming us told a story on the negroes of Virginia, in which he said that the negroes were just as proud of being Virginians as the original F F Vs. A minister was having some trouble in raising money, and thought he would appeal to their pride when the collection plate came back almost empty. He said, "You all must do better at the next collection. You is God's chosen people. They is four tribes, the Huguenots, the Hottentots, the Abyssinians, and the Virginians, and you must come across." I think the Georgians are God's chosen people, and am glad to be back home. I have never got over being a

Georgian. While good things have come to me in my adopted State, when Alabama and Georgia are considered I always root for Georgia.

Dr. Harris then presented a paper entitled "Relatively High Fat, Low Carbohydrate, and Rich Vitamin Diet in the Treatment of Gastric and Duodenal Ulcer."

President Boland, on behalf of the Association, thanked Dr. Harris for his interesting and instructive paper, and expressed their pleasure at having him as their guest.

Dr. T. C. Thompson, Vidalia, read a paper entitled "Classification of Thyroid Diseases, Treatment and End Results." Discussed by Drs. J. W. Palmer, Ailey; Louis C. Allen, Hoschton; Julian K. Quattlebaum, Savannah; C. W. Roberts, Atlanta; R. L. Miller, Waynesboro.

Dr. John B. Fitts, Atlanta, read a paper entitled "Types of Gastric and Duodenal Ulcer and Their Management." Discussed by Dr. George McC. Niles, Atlanta.

As Dr. C. W. Strickler was unable to be present his paper was passed.

Because of the lateness of the hour the paper of Dr. J. W. Shearouse, Savannah, and the paper of Dr. W. P. Jordan, Columbus, were read by title, and turned in for publication.

President Boland then declared a recess of five minutes before proceeding with the election of officers.

Election of Officers:

The Association was called to order at 12:00 noon, and President Boland requested the past-presidents in the audience to come forward and act as tellers.

Drs. T. J. McArthur, J. M. Smith, J. W. Palmer, M. A. Clark, E. C. Thrash, and J. O. Elrod complied with this request.

The following officers were then balloted upon and declared duly elected to their respective offices:

President: Dr. V. O. Harvard, Arabi.

1st Vice-President: Dr. J. A. Redfearn, Albany.

2nd Vice-President: Dr. B. H. Minchew, Waycross.

Delegates to A. M. A.: Dr. E. C. Thrash, Atlanta; Dr. C. W. Roberts, Atlanta.

Alternates to A. M. A.: Dr. J. W. Palmer, Ailey; Dr. Burr T. Wise, Plains.

Councilors—

Ninth District: Dr. C. L. Ayers, Tooea.

Tenth District: Dr. S. J. Lewis, Augusta.

Eleventh District: Dr. A. S. M. Coleman, Douglas.

Twelfth District: Dr. T. C. Thompson, Vidalia.

Selection of Meeting Place:

Invitations were extended to the Association to meet in Athens and in Macon in 1927, and after some discussion it was moved and seconded that the invitation to meet in Athens be accepted.

The motion was put to a rising vote and carried, and President Boland declared Athens to be the next meeting place.

Report of the House of Delegates:

Secretary Bunce read an abstract of the minutes of the second and third meetings of the House of Delegates, which, upon motion duly seconded and carried, were adopted as read.

The President: In keeping with the recommendation in my address yesterday, I have an announcement from the Dean of Emory University stating that the summer clinical course will be given from June 5 to 15, without fail. Applications should be in the office of the Dean within the next few days.

I will now request Dr. Head and Dr. Sharp to bring our newly elected President to the stage.

Dr. Harvard: I thank you for this honor, for I know of no greater thing that could be bestowed upon me than this. With your help I will do the very best I can for you this year.

The President then appointed Dr. Twitty and Dr. Roberts to escort Dr. Redfearn to the stage.

Dr. Redfearn: I appreciate this honor very deeply, and promise to serve to the best of my ability through our worthy President.

The President then asked Dr. Elrod and Dr. Head to escort Dr. Minchew to the stage.

Dr. Minchew: Gentlemen, if there should ever be a time when the President is not on hand, and the First Vice-President is absent, I hope I shall be able to measure up to whatever duties may come to me. I thank you.

On motion, the Association adjourned at 1:30 P.M., *sine die*.

ALLEN H. BUNCE,
Secretary-Treasurer.

PROCEEDINGS OF THE HOUSE OF
DELEGATES OF THE MEDICAL
ASSOCIATION OF GEORGIA
FIRST MEETING
TUESDAY, MAY 11, 1926

The House of Delegates was called to order at the City Auditorium, Albany, Georgia, at 7:40 P.M., by the First Vice-President, Dr. W. R. Dancy, Savannah.

Roll Call:

The Secretary stated that he held in his hand the signed roll call of thirty-eight Dele-

gates and Councilors, and moved that this constitute the roll call for this meeting.

Motion seconded and carried.

The Chairman declared a quorum present and the House duly constituted for the transaction of business.

Those present were:

J. O. Elrod, Forsyth (Ex-President.)

Ralph Freeman, Jackson County.

H. M. Fullilove, Athens, (2nd Vice-President.)

Linton Gerdine, Clarke County.

V. O. Harvard, Councilor 3rd District.

A. S. M. Coleman, Councilor 11th District.

J. M. Kenyon, Stewart-Webster.

A. J. Mooney, Bulloch-Candler Counties.

C. W. Twitty, Tri-County.

F. M. Martin, Randolph County.

J. W. Palmer, Ailey, (Ex-President.)

Cleveland Thompson, Jenkins County.

Marion C. Pruitt, Fulton County.

A. F. White, Butts County.

W. R. Dancy, Savannah (1st Vice-President.)

W. A. Mulherin, Richmond County.

Ralph H. Chaney, Richmond County.

George L. Echols, Baldwin County.

T. C. Thompson, Councilor 12th District.

J. K. Quattlebaum, Chatham County.

O. W. Roberts, Councilor 4th District.

L. F. Lanier, Screven County.

M. W. Spearman, Walker County.

M. N. Stow, Wayne County.

W. J. Turner, Turner County.

R. L. Miller, Burke County.

J. K. Maloy, Telfair County.

C. K. Sharp, Tri-County (Councilor 2nd District.)

W. F. Wells, Fulton County.

George L. Alexander, Monroe County.

Fred L. Webb, Bibb County.

W. F. Sibbett, Coffee County.

T. E. Rogers, Bibb County.

C. E. Waits, Fulton County.

B. T. Wise, Sumter County.

Marion T. Benson, Fulton County.

President Boland, Secretary Bunce and Parliamentarian Clark, were also present.

REPORTS OF OFFICERS

President's Report:

Dr. Boland: My work is covered in my Presidential address, but I can make a verbal report at this time if you wish. I have enjoyed very much my year as President, an honor which I appreciate greatly. I have done my best to discharge the duties of the office. I have visited all the congressional district meetings with the exception of the tenth. In some instances I have attended two meetings of the district societies.

Through my correspondence and my travels through the State visiting District Society meetings and joint meetings I have found the Association in what I consider excellent condition. It seems to me there is a spirit of fraternalism among the members which is very pleasant to observe, and the scientific programs at all the meetings were very interesting and instructive.

I think one of the biggest features of our work should be in regard to public health matters. In addition to carrying out our practice to the best of our ability, and trying to improve ourselves medically we should do everything possible to improve public health. I think there is no fault to be found with the character of the scientific work of our Association. We all make mistakes in diagnosis and treatment, but on the average I think we measure up to the work anywhere in the country, but as an organization I think we should lay the greatest stress and put our strongest efforts into the matter of public health. I will touch on that with considerable detail in my address on Thursday, but I wish now to emphasize the question of putting in the Ellis Health Law in all the counties. We have twenty-three counties with the Ellis Health Law in the State, but 80 per cent of the counties that have societies have no Ellis Health Law or any other law of that nature that is operating. I think we cannot put too much stress on this feature of our work.

I think there is nothing else that I need mention now, but I wish to repeat that I appreciate the honor of being President, and that I have tried to serve you to the best of my ability.

Parliamentarian's Report:

Dr. Clark: I have no special report, but wish to say that I have reviewed the Constitution and By-Laws of the Medical Association of Georgia, and of the County Societies. I have consulted Robert's Rules of Order, and have attended some other meetings and watched the proceedings of the presiding officers of those conventions, and tried to learn some points there.

The office of Parliamentarian was an experiment, and it was a question in the mind of your servant as to whether he could please you. He took the office with great misgiving. He did not know much parliamentary law but knew he could learn that, but whether he could be unselfish, impersonal and fair, and could render decisions without offending or being misunderstood—his nature was such that he feared he could not. Your selection of him for another three years showed your faith in him, and he greatly appreciated it.

He wants to be your servant, to help you, and in helping you help the Association. He wants to forget self completely, and if at times in his earnestness he appears angry, be charitable for he does not mean to appear so. If at any time he makes a mistake do not hesitate to call his attention to it. There are many things he does not yet know about parliamentary law, but everything he does is with an eye single to the good of the Medical Association of Georgia, which he loves, and not for the office of Parliamentarian. Every meeting has made me go home feeling younger because of the appreciation you have shown me, and I most sincerely thank you.

Secretary-Treasurer's Report:

Dr. Bunce presented the following report:
REPORT OF SECRETARY-TREASURER
1925-1926

CONSTITUENT SOCIETIES

On May 1st of this year we had received reports from ninety-five constituent county societies, being five less than had reported up to May 1st of last year. We expect this number to be increased before the end of the year, since on December 31, 1925, one hundred and four societies had reported. Indifference and lack of interest seem to be the chief reasons for delayed reports.

MEMBERSHIP

On May 1st, the above constituent societies had reported 1,364 active members and 46 honorary members, making a total of 1,410. Since May 1st, up to and including May 10th, 50 additional members had been reported, making a grand total of both active and honorary members of 1,460. Still, this is less than we had last year, since there were 1,537 paid-up members at the beginning of the 1925 annual session. This decrease in the number of active county societies and in active membership has occurred, notwithstanding the fact that we have sent out a great number of notices and appeals to the members to pay up their dues than during any previous year. This has impressed upon us the importance of actual contact between the officers and members of the Association. A personal visit from one of the officers of the Association to a county society will accomplish much more than numerous letters and appeals.

THE JOURNAL

The increasing interest of the members of the Association in their Journal is shown by the fact that, since our annual meeting in 1925, we have averaged from twenty-five to sixty well prepared articles on the first of every month—in other words, we have had

on hand from three to ten times as many well written articles as we could possibly publish. This is truly remarkable, when we recall that only a few years ago, it was very difficult to get sufficient material to fill the Journal, and much of what had to be accepted was of inferior quality. Almost all papers submitted have been carefully and thoughtfully prepared, typewritten, double-spaced with wide margins, and have been correct from the standpoint of spelling, punctuation, grammar and rhetoric.

During the year the Journal has published all of the transactions of the Council, House of Delegates, and general meeting of the Association, reports from all county and district societies, reports of committees, news items from the state at large, and other material pertaining to the welfare of the Medical Association of Georgia. In addition to this, sixty-five original articles prepared by members of the Association have been published, including all papers read before the last annual meeting, together with a stenographic copy of the discussions. We still have on hand nearly fifty original articles read before district and county societies, which are acceptable for publication.

In order to publish the transactions, papers read at the annual meeting, and representative articles from each congressional district, it was found necessary to increase the size of the Journal from sixty-eight to eighty pages. This, of course, has caused an increase in the cost, since the actual paper and printing amounts to about seven dollars per page. In addition to this, we have the increased cost of mailing. In order to overcome a part of this additional expense, we have made a determined effort to increase our income from advertising. This has been realized to a certain extent, since for the year ending April 30, 1926, we have received \$4,299.23 for advertising, whereas, for the year ending April 30, 1925, we received only \$3,455.16, giving an increase for the past year of \$844.07. If the Journal is to be continued at its present size, we must have the active cooperation of every member of the Association in helping to keep the dues of all members paid up, and in helping us to keep all present advertisers and to secure new ones for the Journal. This is our Journal, and if we expect to maintain it so that we may refer to it with pride, we must give it our active support.

THE FULL TIME EXECUTIVE SECRETARY

At the meeting of the Council on April 7, 1926, the Council approved the action of the Secretary-Treasurer in accepting the resignation of Miss Martha Irwin as Executive Secretary, and the appointment of Mr. H. L.

Rowe as Executive Secretary and Business Manager of the Journal. The Council fixed the salary of Mr. Rowe at \$150.00 per month. I am pleased to report that he is doing his work in a most acceptable manner.

COMMITTEES

Your Committees—both standing and special—have held numerous meetings and have served the Association well. Their reports will be presented to you by their respective chairmen.

FINANCIAL REPORT

On May 1, 1925, we had \$7,182.60 in the bank and all current bills paid. On May 1, 1926, we had \$5,677.94 in the bank, and all current bills paid. This shows a decrease of money in the bank of \$1,504.74. This is accounted for by the fact that although our total income was increased \$279.14 during the year, our total expenditures increased \$2,356.68. The two chief reasons for this additional expense were: first, increasing the size of the Journal, and second, employment of a full time Executive Secretary.

CONCLUSION

In conclusion, I wish to express to you my sincere appreciation of the confidence you have placed in me and the loyal support you have given me in the discharge of my duties as your Secretary-Treasurer and Editor. The President of the Association, Dr. Boland, the Chairman of the Council, Dr. Harvard, the members of the Council and members of Committees have all served the Association faithfully and well, and have rendered me every assistance possible. We owe a debt of gratitude to the secretaries of all constituent societies for their helpful cooperation and invaluable aid.

Respectfully submitted,

ALLEN H. BUNCE, M.D.,

Secretary-Treasurer.

Dr. R. L. Miller: I move that this report be accepted with thanks.

Motion seconded and carried.

The President: There seems to be more trouble with the Committee on Necrology. I have just been informed that Dr. L. M. Gable has gone to Florida. I will now push Dr. W. H. Clark up to the chairmanship, and add Dr. W. F. Wells of Fulton County as the third member of the Committee.

Reports of Councilors:

First District: Dr. Charles Usher. The membership of the First District is as follows:

County	Members		Hon.
	1925	1926	
Bryan (with Chatham)			
Bulloch-Candler . . .	26	12	
Burke	16	17	

Chatham	79	59	
Effingham (with Chatham)			
Evans	6	6	
Jenkins	4	5	1
Tri (Liberty, Long, McIntosh)			
Screven	11	11	
Tatnall	8	8	
Total	150	118	1
Ten counties reported, three counties missing.			

There were two meetings of the First District Society. About thirty-five members attended the first meeting in Savannah. In February there was a meeting in Millen and that was also well attended.

Second District: Dr. C. K. Sharp.

County Society	Members 1926	Eligible Non-members	Members 1925	Died	Removed	Newly Located
Colquitt	10	0	10	0	3	0
Decatur-						
Seminole	8		15	0		
Dougherty	15	0	15	0	1	
Grady	8	3	10	0	2	1
Mitchell	11	3	10	0	0	2
Thomas	29	4	29	0	0	2
Tift	7	0	6	0	0	0
Tri-County	24	3	25	0	0	0
Worth	7	2	7	0	0	0
Baker	Unorganized; three doctors, one a member Tri-County					
Total	119	15	127	0	6	5

The Second District has the distinction, for the first time in its history, of entertaining the Medical Association of Georgia. Albany, its metropolis, is proud to have this body of distinguished men as its guests, and we of the outlying counties share in this pride, and hope that the Association will be so well pleased that they will come again at some future date. Albany itself is enjoying a substantial growth rarely attained by any city.

Albany has a corps of physicians equal to the best in the principal branches of medicine; a hospital that is up to date in every respect, and the Dougherty County Medical Society enjoys the privilege of being the only 100 per cent Society in the District. However, there are several more so near the 100 per cent mark that it is a pity they cannot be classed as such.

Every County in the District is organized except Baker, which has but three physicians,

and one of these is a member of a neighboring society. I have endeavored to get the other two to join their nearest Society, but without success thus far.

I have secured from the secretary of each County Society the names of all eligible men who have not paid their dues this year, and have written a personal letter to each one. Some have joined since. I feel that it is worth while to do this. I want to quote a letter received in reply from one of these men: "If we had a medical society in County I would be glad to be a member. I have lived in County seven years and have kept my dues paid up to now, and if there has ever been a meeting it would be news to me." Here is a man who is willing and anxious to be active, but what incentive has he?

I want to urge the County Societies of the District to adopt regular meeting times, have some papers for discussion, report cases, and there are many other activities that will be for the good of the profession and the community. This is the only way full membership and interest can be maintained.

The success of a County Society depends largely upon the Secretary. Pick the best man you have, one with the interests of the profession at heart; one with vision, and the will to make the Society "a go" and, by the way, one who will answer promptly all communications from the Councilor.

I want, incidentally, to mention the Tri-County Medical Society and its work. We tried meeting monthly, with poor results. Then we met every two months, with a fixed program a year ahead. This brought about some improvement, but was not ideal. This year we have adopted the plan of meeting every three months, with three or four good papers on the program, two of which are by men outside the Society. This plan, I believe, is going to act well, as the attendance is full at each meeting, and interest is increasing. We meet at 10:00 A.M., finish the program by 1:00 P.M., have dinner as the guests of the town in which we meet, and go home to work. Thus we are away from work but a few hours, but go back refreshed, invariably with some new ideas, and a more fraternal feeling one toward the other. Verily, if we doctors would meet regularly, lay aside jealousy and envy, frankly and sympathetically talk over our failures as well as our successes in the practice of medicine, as well as in our other affairs, and be more brotherly one toward the other, then we could truly say that we were making real progress.

Third District: Dr. V. O. Harvard.

Clay County has only five men. Two of them are members of the Tri-County Medical Society in the Second District; one of the others is not eligible and the other two are indifferent.

Quitman County has only one physician, and he is a member of the Randolph County Medical Society.

Randolph County is 100 per cent in membership, and was the first county in the State to report 100 per cent. They had fifteen men in 1925, and have sixteen in 1926.

Terrell County is also 100 per cent, having every man in the County a member. They had nine in 1925 and have nine now.

Stewart-Webster County Medical Society say that they are 100 per cent this year, as they have every man except one and he is not eligible. They had fourteen men in 1925 and have fifteen in 1926.

Schley County has only three men; two of them are affiliated with Sumter County, and one with the Stewart-Webster Society.

Lee County has five physicians; one of them is affiliated with Sumter County, two of them gave me their applications for the Dougherty County Medical Society a few days ago but their dues have not been reported paid as yet; one of the remaining two is too old to do active work, and the other one is not eligible.

Sumter County has a good membership of fifteen; two of them are from Schley County, and one from Lee County, as previously reported.

Macon-Taylor County Medical Society had a membership of eleven last year, and has eleven in 1926.

Dooly County had eleven men in 1925 and has twelve in 1926.

Crisp County is another 100 per cent County. She had eighteen men in 1925 and has seventeen in 1926, one having moved away.

Turner County also is a 100 per cent County. She had ten men in 1925, and had seven in 1926, three having moved away.

Ben Hill County had ten men in 1925, and has nine in 1926. One man moved away, and there is one man in the County whom they cannot get interested, which is the reason they are not 100 per cent.

We have a splendid District Society that meets twice each year, in the months of June and November.

Dr. G. Y. Moore, Cuthbert, submitted the following report from the Randolph County Medical Society for the past year:

June meeting, nine present. Paper by Dr. Moore on "Recent Literature on Diphtheria."

July meeting, eighteen present. Dr. Sellers of the State Board of Health gave an interesting talk on "Rabies."

August meeting, nine present. Paper by Dr. Crook on "Osteomyelitis." Dr. J. C. Patterson made a report on the University Clinic held at Arlington.

September meeting, twenty-three present. "Cancer" was the subject on the program. Dr. Frank K. Boland, President of the Medical Association of Georgia; Dr. J. L. Campbell, Chairman of the Cancer Commission, Dr. V. O. Harvard, Councilor of the Third District, and several visiting doctors and nurses were with us.

October meeting, eleven present. Paper by Dr. McCurdy on "The Business Side of the Profession."

November meeting, eleven present. Paper by Dr. Martin on "Pneumonia." On this date dues for State and County societies collected from our thirteen active members.

December meeting, eleven present. Dr. F. D. Patterson gave a talk on "Minor Surgical Conditions as Found in Everyday Practice." Election of officers.

January meeting, eight present. Paper by Dr. Ingram, "The Medical Profession as I see It."

February meeting, twenty-seven present. Clinic held by Drs. Sydenstricker, Michel and Mulherin, of the Medical Department of the University of Georgia.

March meeting, eleven present. Paper by Dr. J. C. Patterson on "Indigestion Exposed."

April meeting, nine present. Dr. Crook gave a talk on "The Doper and What to do With Him."

May meeting, twelve present. Dr. McCurdy gave a talk on "Leprosy."

The President: There is no delegate here from Walker County, so I will appoint Dr. Mathew W. Spearman, of Chickamauga, the President of the County Society.

<i>Fourth District:</i> Dr. O. W. Roberts.				
County	Members	Members	Members	Hon.
	1924	1925	1926	
Carroll	22	19	16	2
Chattahoochee	0	0	0	0
Coweta	4	3	15	
Harris	0	0		
Heard				
(with Carroll)				
Marion	0	0		
Meriwether	10	10	10	
Muscogee	44	34	26	
Troup	32	29	27	
Talbot	4	4	4	
Total	116	99	100	2

Seven counties reported, three missing. Increase 1.

We have made considerable effort to organize those counties, but they are tolerably large and we have not been able to get them together. In the upper half of the District my efforts have been quite successful, but the lower part of the District has fallen off some. I predict that by the end of the year our membership will go up markedly. It has been very difficult to organize Coweta. Newnan ranks about eighth in the entire State, in size and wealth. They always had about three members in Coweta County. They have a well organized society now of fifteen members, and that gets in all except five, three of whom are old men, and perhaps not able to be in. I think Newnan has one of the best secretaries of any society in the State. I wish to mention this County particularly. They have just built a hospital that is as pretty as any in the United States. The Fourth District, I think, is getting along very well. We have had a good meeting, and on the 15th of June will have another.

The President: I wish to congratulate Dr. Roberts on getting a society started in Coweta. It has been a stigma on our Association that we have not been able to do this before, and that Dr. Roberts has been able to do it is a matter for congratulation. There is no reason why they should not have a good society, especially since they have such a splendid new hospital. We will now have the report from the Fifth District.

Fifth District: Dr. E. C. Thrash gave the following report:

County	Members		Hon.
	1925	1926	
Campbell	7	5	
Douglas	4	4	
DeKalb	11	12	
Fulton	366	263	19
Rockdale	0	0	
Total	388	284	19

Four counties reported, one missing.

Rockdale has no society. They have been appealed to for years, but without response.

Sixth District: Dr. M. M. Head.

County	Members		Hon.
	1925	1926	
Bibb	80	68	
Butts	8	6	
Clayton-Fayette	7	8	
Crawford (with Bibb)			
Henry	7	6	
Jasper	6	6	
Jones	4	3	
Lamar	7	7	
Monroe	7	7	

Pike	9	8
Spalding	19	18
Upson	10	10
Total	164	147

Thirteen reported, one missing.

We have several 100 per cent counties. I figure that any man who has been a member of the State Association as long as we have should not be begged and worried about paying his dues. I believe that the average member of the State Association should have just such a feeling in his heart that he should not need to be begged for his dues any more than I should have to be begged to feed my children, and I am a little derelict about getting after them. I write them once a year and that is about all. We have three 100 per cent counties, and the best I can gather is that the men who have not paid their dues are men who have left the State. I know some of them have gone to Florida.

Seventh District: Councilor absent.

Eighth District: Councilor absent.

Ninth District: Councilor absent.

Tenth District: Dr. S. J. Lewis

County	Members		Hon.
	1925	1926	
Baldwin	24	22	1
Columbia			
(with Richmond)			
Glassecock			
Hancock	1	1	
Jefferson			
(with Richmond)			
Lincoln			
(with Richmond)			
McDuffie	7	3	
Richmond	93	46	
Taliaferro		3	
Warren	5	5	
Washington	22	20	
Wilkinson			
Total	152	100	1

From this report it will be observed that six of the twelve counties comprising the tenth district are unorganized. However, the physicians in three of these counties affiliate with other societies and one member in Hancock maintains his connection by paying his dues directly to the State Association, leaving only Glassecock and Wilkinson counties entirely without representation.

I regret that Richmond County shows so many delinquent in the payment of dues, but feel confident that this will be remedied in the near future.

Respectfully submitted,

S. J. LEWIS,
Councillor Tenth District.

Dr. Mulherin: I wish to substantiate Dr. Lewis' report. The District really is in much better condition so far as medical matters go. Augusta and Richmond County is the medical center. These men come to our meetings once a month, but they do not like to pay the money, and it does not show well on paper. They all come to our Richmond County Medical Society meetings. We sometimes have seventy-five to a hundred present, so Dr. Lewis is correct in his statement that conditions are better than they appear on paper.

Eleventh District: Dr. A. S. M. Coleman.

County	Members 1925	Members 1926
Appling (Altamaha)	1	
Atkinson		
Bacon		
Berrien (Lanier)	2	1
Brooks		
Brantley		
Camden		
Charlton		
Clinch		
Coffee	12	12
Cook	5	4
Echols		
Glynn	10	9
Irwin	5	4
Jeff Davis		
Lanier		
Lowndes	17	11
Pierce		
Ware	32	28
Wayne	10	7
Total	94	76

Out of the twenty counties in the Eleventh District there are five active societies. Brooks, Glynn, Lowndes, Ware and Coffee. Appling County and Jeff Davis County have joined to form the Altamaha Society. I visited the last two named, with a view of renewing interest, and when I left the members promised to pay their dues and affiliate.

Atkinson County has no society. I have been trying to get them to affiliate with Coffee, and several of the men have done so.

Bacon County has no society. Last year some of the men were members of the Ware County Society. This year I am unable to say anything definite about them. I visited them but could get no report. There are only three men in the County.

Berrien and Lanier have no societies that are active, and I have been unable to do much with them.

Brooks County is well organized and active. Brantley, Camden, Charlton, Clinch and Echols Counties are very sparsely populated. I have written letters, inviting these men to join the active societies closest to them, but to date have failed to hear from any of them.

Pierce County has never had a society. Most of her men are affiliated with Ware, which is probably the most active society in the District.

In addition to the five Societies I mentioned, I am notified that Cook, Irwin and Wayne Counties are organized and active.

We have a splendid and well attended District Society, meeting twice yearly. The men show considerable interest and pleasure in these meetings.

I have written personal letters to a physician in each County, where there was one, appointing him a member of a committee to help increase membership, and have asked him to send me a list of the eligible men in his County so that I might write to them personally and ask them to join us. This was done three months ago, and to date I have received five replies to the twenty letters.

Several doctors have moved away from the District, which is one reason why the membership is reduced.

Twelfth District: Dr. T. C. Thompson.

County	Members 1925	Members 1926	Hon.
Bleckley			
Emanuel	13	12	2
Houston	5	5	
Johnson	5		
Laurens	16	16	
Montgomery	2	4	
Ocmulgee (Bleckley, Dodge & Peach)	12	13	
Peach	1		
Telfair	16	15	1
Toombs	8	6	
Treutlin	2	2	
Twiggs	4	3	
Wheeler			
Wilcox			
Total	84	76	3

Eleven counties reported, five missing.

We lack eight members of having as many as we had last year.

We have a very good District Society which meets twice a year. I think the District is

in about the same condition this year that it was last year.

The President: These reports, I think, show that the Councilors have done good work, and I am sure we thank them for their efforts. There are only fifty-eight counties in the State without medical societies. That is about one-third, and when we hear the reports from the Councilors, and hear about their difficulties and how few doctors there are in many of the counties, we can appreciate that it will be many years before a lot of these counties organize societies, if they ever do. I think we have done very well.

The next order of business is the reports of Committees, first the Committee on Scientific Work.

Reports of Committees:

Committee on Scientific Work: Dr. W. A. Mulherin, Chairman, presented the following report:

REPORT OF THE COMMITTEE ON SCIENTIFIC WORK

The Committee on Scientific Work has endeavored to arrange an instructive, and a practical program, for our 1926 Albany meeting.

In keeping with this idea, a report of the Committee was printed in February issue, 1926, of the Journal of the Association, stating that subjects of timely interest, and broad-gauged in scope, would receive first consideration for a place on program. It also stated that 36 papers (exclusive of addresses by our president and our guests) would constitute our program. It is the belief of the Committee that our yearly meetings are intended, primarily, for the presentation and discussion of medical subjects that are of greatest value and interest to the general practitioners in Georgia. It is also our conviction that 36 papers, well discussed, will prove of more genuine merit to the Association than a greater number of papers poorly discussed, or not discussed at all.

The Committee met in Atlanta on March 17, 1926—two days after the expiration date for receiving titles of papers—and arranged the 1926 program. Fifty-five titles of papers were sent in for consideration. We regretted the fact that all applicants could not be assigned a place on program. To meet the difficulty we arranged to have appear on program, following each paper, the names of two members who will lead in the discussion of the paper. This places on the program the names of 108 members, instead of a smaller number as heretofore.

Unfortunately, the Committee has apparently violated the By-laws, in having the

names of three guests on our program for this year. Dr. Wm. David Haggard, Professor of Surgery and Clinical Surgery, Vanderbilt University, and President of American Medical Association last year, and Dr. Chas. Casady Bass, Dean and Professor of Experimental Medicine, Tulane University, were asked by your Committee to be our guests at this 1926 meeting. These invitations were accepted. Later the Committee learned that the physicians of Albany had extended to Dr. Seale Harris of Birmingham, Ala., past president of Southern Medical Association, an invitation to be our guest and present a paper, and the invitation had been accepted. Although fully aware that only two guests are permitted to appear on our program yearly, we deemed it—under existing circumstances—to the best interests of the Association not to recall the third invitation. We were convinced that the by-laws had been violated unknowingly, and the physicians extending the invitation had been actuated only by worthy and commendable motives. Therefore your Committee will have to respectfully ask your indulgence, and likewise your approval of its actions.

This year the Committee was able to conform to the by-laws of our Association, requesting "Thirty days previous to each annual session it shall prepare and issue a program announcing the order in which papers, discussions and other business shall be presented." We wish to recommend that this law be strictly enforced, as it insures a better attendance at our meetings and more active and intelligent discussions of papers.

The program as printed we present to you, and ask its adoption as the order of business for the Albany 1926 meeting.

Respectfully submitted,
W. A. MULHERIN, Chairman,
FRANK BIRD,

A. H. BUNCE, Secty.-Treas.
Committee on Scientific Work.

Dr. Mulherin: Before this is adopted I would like to call attention to an error in the program. Dr. Clark was kind enough to mention it to me, and we acknowledge it. It is on the cover—"The Seventy-seventh Annual Meeting" which should read "The Seventy-seventh Annual Session." Each time we gather during the session is a meeting. Note should be made of that for the benefit of others who serve on this committee in the future.

Also, we suggest taking up with the Council the matter of paying the expenses of our guests. We did not incorporate it in our report for in some associations the expenses are

paid, in others not. We have no authority to act on it, except as a recommendation to the Council, but I wish to ask what your wishes are in the matter, and we leave it to the House of Delegates to make the recommendation.

The President: Before putting this to a vote I wish to say that the matter of having three invited guests when the By-Laws say we can have only two is taken care of by the fact that at a late date Dr. William D. Haggard notified me that he would not be able to attend.

Dr. M. C. Pruitt moved the adoption of the report as read.

Motion seconded by several and carried.

Dr. Clark: The recommendation should come up under new business. It is not a part of the report of the Committee on Scientific Work.

Committee on Public Policy and Legislation: Dr. J. W. Palmer, Chairman, presented the following report. (Report printed here as amended.)

REPORT OF COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Your Committee had very little influence with the 1925 General Assembly. We visited the Legislature while in session three times. We got through all desired legislation in the Senate, but failed in the House.

We succeeded in preventing any undesirable Medical Legislation. We had medical friends in both houses that kept us posted relative to undesirable measures developing. The one that gave us most concern was the preparation for the introduction of a bill to lower the standard of medical educational requirements. There was a meeting of this Committee called with the members of the General Assembly who were sponsoring the measure, also the Governor and others interested in medical education. At this meeting a committee was appointed to look into this matter and suggest a solution to the question satisfactory to all concern, which resulted in leaving the matter as it was.

The Supreme Court having ruled that a part of the Vital Statistics Law was unconstitutional, your Committee asked his Excellency, Governor Clifford Walker, to include this in his Extra Session Call which he did and the bill passed and is before us to have approved in the coming election, as an Amendment to the Constitution.

The Code prepared by the Georgia Children Code Commission and approved by this Association last year secured the passage of only one of the measures. The Child Labor Law passed. The Juvenile Court Bill, Non-Support and Desertion Bill, Legal Adoption

Law, Illegitimacy Law, Laws Governing the Boys and Girls Training Schools and the Compulsory Attendance Law Modification, all failed to pass.

This committee held a meeting in Atlanta April 8th, and adopted the following Legislation for the approval of the House of Delegates: That the Medical Practice Act be so amended that it will be necessary only to have your license recorded and not your diplomas, since the old law requiring the recording of diplomas has never been repealed, the court has ruled that your license and diplomas both be recorded to be legally qualified to practice medicine in Georgia. That the Medical Practice Act be so amended that the members of the Board of Medical Examiners shall be nominated by the Medical Association of Georgia and appointed by the Governor.

The Act creating the State Board of Health shall be so amended that the members of the State Board of Health shall be nominated by the Medical Association of Georgia and appointed by the Governor except one Layman and one Dentist who shall be selected and appointed by the Governor from the State at large.

Respectfully submitted,
J. W. PALMER, Chairman,
T. F. ABERCROMBIE,
W. E. McCURRY,
FRANK K. BOLAND,
ALLEN H. BUNCE,

Com. on Public Policy and Legislation.

Committee on Medical Defense: Dr. M. A. Clark, Chairman, presented the following report:

Your Committee met at the headquarters of the Association in Atlanta on April 7, 1926.

Present were: Dr. E. C. Thrash, Dr. Allen H. Bunce, Dr. Frank K. Boland, and Dr. M. A. Clark. Dr. Davis and Dr. Harvard were unable to be there.

The actual expenditures amounted to \$2,625.00, and we request the usual appropriation of \$3,500.00 for next year. We recommend that Bryan & Middlebrooks be continued as our attorneys for next year.

It is very gratifying that we can report only ten cases instead of twenty-two. I think one reason for this is that our doctors are becoming wiser about expressing their opinion about other cases. Without thinking, we sometimes express an opinion that serves as a basis for a suit for damages. We have had some threatened suits this year, but they have been dismissed. It is remarkable how helpful our attorneys are.

Let me remind you once more of something that I have already reminded you of several

times. If threatened with a suit the physician sometimes becomes frightened and employs local counsel. If this happens, notify the Secretary at once, and if our attorneys feel that it is wise to employ local counsel they will do so, and we will take care of the fees the local counsel charge. The attorneys can arrange better about the type of counsel they need, and also about the fees. Let me remind you again that if any of you are thoughtless enough to employ counsel yourselves do not be disappointed if the Committee on Medical Defense have to rule that they cannot allow the expense.

We wish to express our appreciation of your cooperation. It may seem that we will not need so much money next year, but it looks as if some of these suits that are still pending may cause us trouble.

Dr. Elrod: I move the adoption of this report, with thanks to the Committee.

Motion seconded by Dr. Miller and unanimously carried.

Dr. Clark: You understand, of course, that the portion of the report referring to finance has to go to the Council and they will act on it before it can be adopted.

Committee on Hospitals: Dr. Cleveland Thompson, Chairman, presented the following report:

REPORT OF THE COMMITTEE ON HOSPITALS

The Committee on Hospitals has had very little work this year, and it has held no meeting. It has furnished the information requested by The American Medical Association.

In deference to the opposition of the nurses and some of the doctors the Committee has not further agitated its investigation into the Trained Nursing Situation in Georgia. However, we are pleased to note an improvement. There is a tendency among the hospitals to graduate larger classes of nurses, and this is relieving the situation somewhat; but there is urgent need for more nurses. It is very expensive to the hospital and arduous to its personnel to operate a training school for nurses; and some of the smaller hospitals are able to operate only a very unsatisfactory school, but they are faced with the alternative of doing this or closing up for lack of nurses. Many of the hospitals are training their nurses adequately and as good as possible; others are not financially able to do so good as they would; while still others are doing poorly and will do no better till through publicity they are forced to. In some instances the teaching personnel is thoroughly unsuited. The Committee feels that the hospitals in a given section ought to train enough nurses

not alone for their own needs, but also for the needs of the public and doctors in the territory from which they draw their patronage. There ought to be enough nurses so that SOMEBODY WILL answer the calls and WILL give nursing service to the sick.

As suggested by The American Medical Association the Committee on Hospitals offers the following resolution:

Moved that the members of the Committee on Hospitals for the ensuing year shall receive their appointment for one, two, and three years each; and that subsequently the appointment shall be for three years.

Respectfully submitted,
CLEVELAND THOMPSON,
Chairman,

W. H. MYERS,
R. M. HARBIN.

Dr. Palmer: I move that this report be adopted.

Motion seconded by several and unanimously carried.

Committee on Necrology: Dr. W. F. Wells presented the following as a preliminary report, and requested that anyone who knew of the death of other members would report this to the Committee so that they might be added to the final report.

OBITUARY

May, 1925, Journal

Dr. Chas. F. Benson, 521 Ponce de Leon Ave., Atlanta, Ga. Born Aiken, S. C., July 28, 1861. Died April 12, 1925.

July, 1925, Journal

Dr. Felix C. Johnston, 871 Mulberry St., Macon, Ga. Born 1860. Died May 25, 1925.

Dr. L. Robard, Villa Rica, Ga. Died May 27, 1925.

August, 1925, Journal

Dr. DeLamar Turner, Savannah, Ga. Born Sparta, 1877. Died June 23, 1925.

Dr. Olynthas W. Turner, Helena, Ga. Born July 15, 1843 at Lumpkin. Died June 16, 1925.

Dr. William T. Gautier, Los Angeles, California. Born 1854. Died from fatal injuries received in automobile accident June 18, 1925. Member of Muscogee County Medical Society. Listed in Directory: 1115½ Broad St., Columbus.

September, 1925, Journal

Dr. Paul R. Chambliss, Gray, Ga. Born 1886: Died August 3, 1925.

Dr. W. P. Ponder, Forsyth, Ga. Born 1848. Died July 26, 1925.

Dr. J. P. Norris, Columbus, Ga. Born 1864. Died July 21, 1925.

October, 1925, Journal

Dr. Farmer Hinton Letson, 143 King's Highway, Decatur, Ga. Born 1876. Died

September 2, 1925.

Dr. B. B. Jameson, Columbus, Ga. Born 1859. Died August 25, 1925.

December, 1925, Journal

Dr. John Hubert Troutt, Madison, Ga. Born 1868. Died November 1, 1925.

Dr. Thos. E. Mitchell, Columbus, Ga. Born 1864. Died November 6, 1925.

Dr. Henry B. Allen, Americus, Ga. Born 1878. Died

Dr. J. Lawton Hiers, Savannah, Ga. Born 1865. Died November 8, 1925.

January, 1926, Journal

Dr. Bertram H. Wagnon, 159 E. Tenth St., Atlanta. Born January 19, 1884. Died December 7, 1925.

Dr. Wm. Howard Felton, Cartersville. Born 1869. Died, Harbin Hospital, Rome.

Dr. A. A. Smith, Hawkinsville. Born 1847. Died November 26, 1925.

February, 1926, Journal

Dr. A. M. Torbitt, Gough. Born 1887. Died December 24, 1925.

Dr. G. A. Burch, Jacksonville, Ga. Born 1872. Died December 27, 1925.

Dr. A. K. Bell, Madison. Born 1861. Died

March, 1926, Journal

Dr. Cheston King, 40 Muscogee Ave., Atlanta. Born Died February 7, 1926.

Dr. J. B. Chastain, Blue Ridge. Born 1857. Died January 29, 1926.

Dr. Sterling Gibson, Thomson. Born 1858. Died February 10, 1926.

Dr. P. T. Reynolds, Monroe. Born 1874. Died January 19, 1926.

April, 1926, Journal

Dr. Geo. H. Lehman, Augusta. Born 1874. Died February 14, 1926.

Dr. T. S. Jones, Jeffersonville. Born 1865. Died February 17, 1926.

Dr. James L. Lovvorn, Bowdon. Born 1862. Died February 4, 1926.

Dr. T. J. Phillips, Griffin. Born Died February 20, 1926.

Dr. M. T. Marchman, Dallas. Born Died February 21, 1926.

I would like to add a resolution of regret for our deceased members, and I move that we rise for a moment in memory of these doctors, some of whom were very dear friends of some of us and we regret their death most sincerely.

(The House of Delegates stood with bowed heads.)

Dr. Clark: In the years gone by the Committee on Necrology, besides securing and preparing a list of our deceased members, would get little obituaries together and they were published. During the reorganization of the

Society these were dispensed with, but it seems to me it would be a very nice thing to do again. It would mean a little more work on the part of the Committee, but I am sure they would be willing to do this. We say few enough nice things about our friends while they are living, and I would sleep just as peacefully if I knew that some nice little thing of this sort would be read and adopted by my Association after I was gone.

Dr. Wells: The President stated that many of the Committee on Necrology had moved away or resigned, and there has really been no one on duty this year. I really felt a little ashamed to offer this report, but thought we could make a brief statement at the end covering all of it. I do not see how we could write anything in memory of each doctor, unless someone in his community would write an obituary. If all were worthy of as much as could be said about some of them it would keep us all night on this report alone.

Dr. Stow: These have been brave soldiers who have died and we might offer Cullen's "Ode to the Brave"—this would cover all.

"How sleep the brave who sink to rest
By all their country's wishes blest.
When Spring, with dewy fingers cold
Returns to deck their hallowed mould,
She there shall find a sweeter sod
Than Fancy's feet have ever trod.

"By Fairy hands their knell is rung,
By elves unseen their dirge is sung,
Their honor comes, a pilgrim gray,
To bless the turf that wraps their clay;
And Freedom shall awhile repair
To dwell, a weeping hermit, there."

I move the adoption of the report.

Motion seconded and unanimously carried.

Cancer Commission: Dr. J. L. Campbell, Chairman, submitted the following report, which was read by Secretary Bunce.

REPORT OF THE CANCER COMMISSION OF THE MEDICAL ASSOCIATION OF GEORGIA, 1925-26

MAY 11, 1926

Mr. President and Gentlemen of the House of Delegates of the Medical Association of Georgia:

It is now nine years since we began the educational campaign for cancer control and we steadfastly believe that much good has been accomplished. Many people are seeking medical advice for pre-cancer and early can-

(Continued on page 334)

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Profession of Georgia.

65 Forrest Ave., Atlanta, Ga.

AUGUST, 1926

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M. M. HEAD, M.D.

Articles are accepted for publication on condition that they are contributed solely to this Journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Reprints should be ordered within 30 days after the appearance of an article, since all type will be destroyed at the end of that time.

Editorial Department

A MESSAGE FROM OUR PRESIDENT

To the members of the Medical Association of Georgia:

I do not know why it is true, but it seems to be a fact just the same, that most general practitioners will not make reports or keep records.

I have no quarrel with anyone because of this either, for it does entail work and trouble to do so, and it always has a way of coming just at the busiest time a doctor has.

All this is true in a way, but each of us has resting upon us an obligation to pass on to posterity and to those who follow after us, anything that will be helpful, or add to the public good, just like somebody before us took the trouble to preserve and hand down to us all that we have learned from the fields of books and literature.

Not that we have to write books or produce literature, but it is from the accumulation of records faithfully kept and properly filed

that many truths are proven, or fallacies exposed.

I feel that I do no violence to your liberties, nor that I offend your intelligence when I appeal to you to give your full and hearty cooperation to the authorities and organizations upon whom the administration of the Law of Vital Statistics is imposed.

If we turn the cold shoulder of indifference and disregard and fail to meet the reasonable requirements of this law, we will bring just criticism upon our profession and court an attitude that will prove embarrassing to us in the future.

No hardship is imposed, nothing unreasonable is required. Just a fair and just discharge of a small duty, the performance of which will bring satisfaction to us, and benefit to the public which is dependent upon our profession to this end. Every state in the Union has a Vital Statistic law in operation except Nevada, South Dakota, Texas and Georgia.

As you know Georgia once had this law, but the Commissioners of Houston County brought mandamus proceedings against the State Board of Health contending that it was illegal under the Constitution of Georgia to pay out county money in the collection of Vital Statistic records.

The Superior Court ruled that the act was legal. Houston county immediately carried the matter to the Georgia Supreme Court and these gentlemen reversed the Superior Court and declared the act illegal.

During the extra session of the Legislature a Vital Statistic bill passed both houses.

Since this is a constitutional amendment, the matter goes before the people at the next general election.

The Medical Association of Georgia endorsed this bill at its last meeting in Albany.

Since then it has been endorsed by the 1st, 3rd, 6th, 11th, and 12th District Societies, and I feel sure will be endorsed by the other districts as soon as they meet.

It behooves every member of the Medical Association of Georgia to be on the alert in his county and see that this amendment is carried.

V. O. HARVARD, M.D.

THE COUNCILOR DISTRICT MEETING

In several states the Councilor district meeting is being featured as an aid to better organization, and better fellowship, as well as for the opportunities it provides for scientific discussions. Pennsylvania, Michigan and New York have, perhaps made greater effort and achieved greater success in the promotion of these meetings than have any other states, though there are others in which such meetings are being held regularly. The Councilor district society can be, *is being* made a distinct aid to the county society.

The secretary of the Wisconsin State Medical Society, in urging that these district meetings be held, offers some suggestions as follows:

1. Have some real leaders in scientific medicine on the program, for one appearance or, as is done in Michigan, for two addresses or clinical talks.
2. Limit papers to twenty minutes and allow plenty of time for discussions.
3. Register those in attendance.
4. Donate one period to periodic medical examinations.
5. Have a dinner.
6. Have the councilor of the district on the program.
7. Have one or more papers from members living in the district.
8. Have the president of the state society present. The secretary will be there.
9. Have the meeting at a time that will not interfere with other important meetings.

—Bulletin A. M. A.

Comment: The Medical Association of Georgia has twelve District Societies, one for each Councilor District. Meetings were held by every District Society last year, and all were well attended. Most of our Districts hold two meetings yearly; a summer meeting and a winter meeting. Others hold only a summer meeting. Eight of the nine suggestions listed above have been carried out by the District Societies in Georgia for several years. The fourth suggestion, in reference to periodic medical examinations is being particularly stressed this year by our President, Dr. V. O. Harvard, and no doubt this will form an important part of the District meetings in the future. We invite those desirous of attending a real worth-while District meeting to attend any one of the Georgia District meetings.

—A. H. B.

COMMITTEE ON AWARDS SCIENTIFIC EXHIBITION OF THE A. M. A.

The Committee on Awards reports:

The gold medal to Aldo Castellani, Department of Tropical Medicine, School of Medicine, Tulane University of Louisiana, New Orleans, for an exhibit on some tropical mycoses and their causative agents. The award was based on the excellent original investigations in a comparatively unexplored field of medicine and for the perfection of display.

 TWENTY RULES FOR PERSONAL HEALTH

 FOLLOW THESE AND YOU ARE CERTAIN TO BE HEALTHY

Here are twenty rules for personal hygiene. Hygeia, popular health magazine published by the American Medical Association, recommends them in its February issue, quoting them from Surgeon Allan J. McLaughlin's volume in the national health series. They are:

1. Begin with a human appraisal by having a health examination.
2. Improve immediately any defects or correct any faulty habits that such an examination may disclose.
3. Breathe fresh air all the time.
4. Get outdoors as much as you can.
5. Seek the sunshine.
6. Eat plenty of wholesome, well selected nutritious food.
7. Drink plenty of water every day.
8. Do not overeat and avoid overweight.
9. Work hard, play often, and have a good time at both.
10. Sleep enough; outdoors, if possible.
11. Exercise every day.
12. Wear sensible clothes, tight and loose.
13. Be cheerful, serene and contented.
14. Don't let your nerves ever get the best of you.
15. Take proper care of your eyes and other important human organs.
16. Have a bowel movement at least once every day.
17. Keep away from persons having communicable diseases.
18. Keep poisons out of the system.
19. Get your hygienic advice from reputable, regular physicians or scientific health agencies and not from cults, quacks and "patent medicine" advertisements.
20. Stand up and face the world, for the world is all at your feet.

District and County Societies

District Editors

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Long, W. V., Savannah. 2. Watt, C. H., Thomasville. 3. Greer, Chas. A., Oglethorpe. 4. Peniston, Joe B., Newnan. 5. Pitts, Jno. B., Atlanta. 6. Thompson, O. R., Macon. | <ol style="list-style-type: none"> 7. McCord, M. M., Rome. 8. Carter, D. M., Madison. 9. Bennett, J. C., Jefferson. 10. Lee, F., Lansing, Augusta. 11. Mixson, W. D., Waycross. 12. Cheek, O. H., Dublin. |
|---|---|

1926 HONOR ROLL

1. Randolph County, Dr. G. Y. Moore, Cuthbert, November 5, 1925.
2. Warren County, Dr. Robert C. McGahee, Warrenon, December 22, 1925.
3. Dougherty County, Dr. Albert S. Bacon, Albany, January 4, 1926.
4. Upson County, Dr. H. A. Barron, Thomaston, January 7, 1926.
5. Lamar County, Dr. John M. Anderson, Barnesville, January 21, 1926.
6. Crisp County, Dr. J. N. Dorminy, Cordele, February 4, 1926.
7. Evans County, Dr. D. S. Clanton, Hagan, February 13, 1926.

8. Stephens County, Dr. C. L. Ayers Toccoa, March 12, 1926.
9. Emanuel County, Dr. R. C. Franklin, Swainsboro, March 20, 1926.
10. Turner County, Dr. QJ. H. Baxter, Ashburn, March 31, 1926.
11. Screven County, Dr. J. C. Cail, Sylvania, April 23, 1926.
12. Wayne County, Dr. M. N. Stow, Jesup, May 4, 1926.
13. Pike County, Dr. M. M. Head, Zebulon, May 4, 1926.
14. Terrill County, Dr. Logan Thomas, Dawson, May 11, 1926.
15. Forsyth County, Dr. Marcus Mashburn, Cumming, July 2, 1926.

THIRTY-EIGHTH SEMI-ANNUAL SESSION OF THE THIRD DISTRICT MEDICAL ASSOCIATION

The Thirty-eighth Semi-annual session of the Third District Medical Association was held at Americus, Georgia, Wednesday, June 16, 1926, as the guest of Sumter County Medical Society.

The meeting was called to order by the President, Dr. J. C. Patterson, Cuthbert, Georgia. After the invocation by Rev. J. M. Outler, Pastor of the First Methodist Church, a most hospitable and timely address of welcome in behalf of the city was delivered by Hon. Hollis Fort, and in behalf of Sumter County Medical Society by the President, Dr. Kenneth Wood, and was responded to in behalf of the Third District Medical Association by Dr. E. C. McCurdy of Shellman, Ga.

We were, indeed, particularly honored by having with us several distinguished members of the medical profession, viz: Dr. Allen H. Bunce, Secretary of the Medical Association of Georgia; Dr. M. E. Winchester, representing the State Board of Health; Dr. Chas. E. Waits, Dr. R. S. Leadingham, Atlanta, Ga.; Dr. C. K. Sharp, ex-President of Second District Medical Society and Councillor for said

District, of Arlington, Ga.; Hon. R. C. Ellis, Author of the Ellis Health Law. We also felt unusually honored by having with us, among our own membership, three distinguished gentlemen, to-wit: Dr. J. G. Dean and Dr. T. J. McArthur, ex-Presidents of the Medical Association of Georgia, and Dr. V. O. Harvard, recently elected President of the State Medical Association, of Arabi, Ga.

The scientific program was composed entirely of members of our association, with one or two exceptions, which made it by far one of the most interesting sessions ever held in the history of the Association, as follows:

"Stricture of the Ureters," Dr. E. B. Anderson, Americus, Ga.

"Glaucoma and Iritis for the General Practitioner," Dr. F. M. Martin, Shellman, Ga.

"Summer Diarrhea in Children," Dr. R. E. McGill, Montezuma, Ga.

"Public Health Work," Dr. J. W. Chambliss, Health Office, Americus, Ga.

"Leg Ulcer," Dr. J. G. Dean, Dawson, Ga.

"Medical Ethics," Dr. C. K. Sharp, Arlington, Ga.

"Vital Statistics Law," Dr. M. E. Winchester, State Board of Health, Atlanta, Ga.

Address, Dr. V. O. Harvard, President, Medical Association of Georgia, Arabi, Ga.

Explanation of Ellis Health Law, Hon. R. C. Ellis, Author of said Law.

Every subject seemed to meet with a general and full discussion, and especially the Vital Statistics amendment that is to be voted upon in the November election. Upon motion, an overwhelming rising vote was had, pledging the support of every member present to back and assist in having said amendment ratified.

The Ladies Auxiliary of the Third District was held at the Windsor Hotel, after which they were entertained with a dining-room musical.

After accepting an invitation to hold the Thirty-ninth Semi-annual session with Terrell County Medical Society, the Association adjourned, and all the members, their wives and friends, were invited into the dining room of the Windsor Hotel at eight o'clock, where a delightful banquet, interspersed with music, readings, and after-dinner speeches, was very much enjoyed.

CHAS. A. GREER, M.D.,
Secretary-Treasurer.

FULTON COUNTY MEDICAL SOCIETY

An interesting meeting of this Society was held at the Academy of Medicine, 32 Howard St., Atlanta, Thursday evening July 1st, at 8.00 P.M. In the absence of the president Dr. W. E. Person presided.

Dr. L. W. Grove reported a case of Virulent Infection of the Face, which was discussed by Drs. Waits, Arch Smith, Harrison and Wood.

A case of Dissecting Aneurysm of the Aorta was reported by Dr. Hugh Wood and discussed by Dr. Arch Smith. Pyloric Stenosis was the title of a case report presented by Dr. Roger W. Dickson, and discussed by Drs. Niles, Funkhouser, Thrash, Dimmock, Boland, and Grove.

Dr. Hal M. Davison discussed Hay Fever Due to Pecan Pollen.

Report of a case of Gas Gangrene by Dr. W. P. Nicolson, Jr., was of interest and was discussed by Drs. Wilkins, Kite, Carter, Greene, Thrash.

Dr. W. C. Goodpasture presented two cases of Placenta Accreta, which were discussed by Dr. E. C. Davis.

Ileostomies for Abdominal Operative Conditions, was presented by Dr. E. C. Davis.

The regular meeting of this Society was held Thursday evening, July 15th, at the Academy of Medicine, 32 Howard St., At-

lanta, Ga. Dr. Floyd W. McRae presented a case of Cataract Following Thyroidectomy which was discussed by Dr. Clay. Dr. T. C. Davison presented Gun Shot Wounds of the Chest which was discussed by Dr. W. E. Person.

Dr. N. W. Baird gave a clinical talk on the subject of Leucorrhea (endocervicitis) and this was discussed by Drs. Thrash, Rushin and Denton. The paper of the evening was read by Dr. Chas. Bivings on Gun Shot Wounds of the Abdomen. Discussion of this paper was by Drs. Rushin, Person, Selman, Davison and Campbell. Meeting adjourned.

Respectfully submitted,
GRADY E. CLAY,
Secretary.

THE CHATTAHOOCHEE VALLEY MEDICAL AND SURGICAL ASSOCIATION

The twenty-sixth annual meeting was called to order at Warm Springs, Ga., July 13, 1926, at nine A.M., Dr. W. L. Cooke of Columbus, officiating.

Invocation by Rev. W. H. Brown of Warm Springs.

The following papers were read and discussed during the morning session:

Dr. Gilbert F. Douglas of Birmingham, Ala., on the Surgical Aspects of Gynecology.

Obscure Mastoid Infections by Dr. John A. Keaton of Dothan, Ala.

Sinusitis secondary to Influenza by Dr. W. L. McDougal of Atlanta.

The treatment of Chorea by Dr. Guy J. Dillard of Columbus, Ga.

The Diarrhea of Infancy by Dr. W. M. Salter of Anniston, Ala.

Acute Poliomyelitis by Dr. Theo. Toepel of Atlanta, Ga.

Purpura Hemorrhagica by Dr. O. D. Gilman, Columbus, Ga.

At the afternoon session the following papers were read and discussed:

Pulmonary Blastomycosis by Dr. D. L. Head, Zebulon, Ga.

Cesarean Section by Dr. D. Y. Sage, Atlanta, Ga.

The present status of Cesarean Section by Dr. C. H. Richardson, Jr. of Macon, Ga.

Analysis of forty cases of Hemorrhoidectomies by Dr. W. B. Duvall of Atlanta.

Diagnosis of Gall Bladder disease by Drs. Paul Hudson and Wm. F. Lake of Atlanta, Ga., with lantern slides.

The Value of Regional Anesthesia in Certain Carcinomatous conditions by Dr. J. T. Ellis, Dothan, Ala.

Differential Diagnosis of Pellagra and Sprue by Dr. R. S. Leadingham, M.D., of

Emory University and the value of Regional Anesthesia in Carcinomatous Conditions by Dr. J. T. Ellis of Dothan, Ala.

Dr. I. P. Levi of Anniston, Ala., read a very interesting paper on "Why the Roentgenogram in Pulmonary Tuberculosis" at the night session Tuesday, followed by a paper by Dr. John Edmondson, Birmingham, Ala., on The Place for Radiant Energy in Treating Epithelioma after which the association adjourned to attend the annual association dance which was a most enjoyable occasion, there being many ladies present—wives and daughters of members of the association.

Wednesday morning session was begun by a paper by Dr. John B. Fitts of Atlanta, on "The Newer Aspects of Food Principles and Diet," which called forth a lively discussion.

A paper on the Diagnosis and Treatment of Neurastheniform Syndromes by Dr. Tom A. Williams, Washington, D. C., was read by Dr. J. N. Brawner of Atlanta, Ga. Dr. Williams not being able to attend. A case of Pernicious Amnesia by Dr. Fred Wilkerson of Montgomery, Ala.

Iodine Insufficiency in Diseases of the Thyroid Gland by Dr. J. N. Brawner of Atlanta. Refraction by Dr. R. R. Daly of Atlanta and Old and New Therapeutics by Dr. A. LeBron Nourse of Anniston, Ala., finished a very interesting session.

At the afternoon session Wednesday the following papers were read and discussed:

Observations in Certain Types of Headaches by Dr. Francis B. Blackmar of Columbus, Ga.

A "New Hematologic Index of Body Resistance" by Dr. Waller C. Jones of Birmingham, Ala., and an unusual case of Hematuria by Dr. W. A. Upchurch, Atlanta, Ga., after which the body went into executive session. A committee composed of Drs. C. W. Roberts, E. C. Thrash, and F. K. Boland offered the following resolutions on the death of Dr. Bert Wagnon which were unanimously adopted: "It is a law of life that men and things must die. The relentless reaper exhibits no favoritism, makes no promises of preferred earthly existence, acts in mysterious fashion, seems often to pick the fragrant flowers. Consternation follows in this wake. Sorrow and tears attend his pathway. Bertram H. Wagnon is dead. Last year this association caught the magic of his voice and felt the stimulus of his optimism. "Yesterday he saw dawn, felt the sunset glow, loved and was loved, but now he sleeps." Thus again has been exemplified the attributes of the brittle thread of life.

But like the Nazarene he left us something

that hands cannot touch, eyes cannot see nor scales dare adequately to weigh. Material values fade away when the heart of his countless friends in life makes its evaluation. Bert Wagnon left his influence, his personality—and his memory lingers as the spotless sweetness of the flower that greets the morning sun. This memory of him immortal is the treasured possession of this association which he loved. Be it therefore resolved, That this society thus record our feeling of loss at his going and strive to "put out to sea" with the same amiable courage that characterized his life even to his last day.

A motion was made and carried to organize a Past-President's Association composed of all the past-presidents. Dr. Frank K. Boland, Atlanta, was appointed a committee of one to perfect the organization by the next meeting. The object of the organization is for all the past-presidents to act as an advisory board to the councillors on all matters pertaining to the welfare of the association and to hold its meeting at the same time and place of the association.

The following officers were elected: President, Dr. G. F. Douglas of Birmingham; Vice-Presidents, Dr. C. H. Richardson of Macon, Ga.; and Dr. M. M. Head of Zebulon, Ga.; Secretary and Treasurer, Dr. W. J. Love, Opelika, Ala.; Assistant Secretary, Miss Catherine Corley, Opelika, Ala. Dr. Frank Boland, Atlanta, Ga., was elected a member of the Board of Council to fill the place of Dr. W. L. Champion whose term expired with this meeting.

PROGRAM COMMITTEE

Dr. C. W. Roberts, Atlanta, Ga., Chairman; Dr. Jerre Watson, Anniston, Ala.; Dr. J. M. Anderson, Columbus, Ga.; Dr. A. S. Frasier, Dothan, Ala.; Dr. S. P. Kengon, Dawson, Ga.

ENTERTAINMENT COMMITTEE

Dr. W. A. Selman, Chairman, Atlanta, Ga.; Dr. D. Y. Sage, Atlanta, Ga., Dr. Edgar H. Greene, Atlanta, Ga.

Respectfully,
W. J. LOVE,
Secretary.

Lowndes County Medical Society

The Lowndes County Medical Society announces the following officers for 1926:

President—A. G. Little, Valdosta.

Vice-President—J. M. Smith, Valdosta.

Secretary-Treasurer—Jos. A. Thomas, Valdosta.

Delegate—Jos. A. Thomas, Valdosta.

Alternate—T. E. Pennington, Howell.

Board of Censors—T. E. Pennington, J. M. Smith, P. C. Quarterman.

Woman's Auxiliary Medical Association of Georgia

OFFICERS

Honorary President, Mrs. James N. Brawner, Atlanta
 President, Mrs. C. W. Roberts, Atlanta Parliamentarian, Mrs. Allen H. Bunce, Atlanta
 Vice-President, Mrs. W. L. Davis, Albany Secretary-Treasurer, Mrs. Marion T. Benson, Atlanta

District Managers

1st District, Mrs. Gordon L. Groover, Savannah	7th District, Mrs. P. O. Chaudron, Cedartown
2nd District, Mrs. Gordon Chason, Bainbridge	8th District, Mrs. Paul Holliday, Athens
3rd District, Mrs. R. H. Pate, Unadilla	9th District, Mrs. J. H. Downey, Gainesville
4th District, Mrs. R. S. O'Neal, LaGrange	10th District, Mrs. W. W. Battey, Sr., Augusta
5th District, Mrs. Marion C. Pruitt, Atlanta	11th District, Mrs. B. H. Minchew, Waycross
6th District, Mrs. C. H. Richardson, Jr., Macon	12th District, Mrs. T. C. Thompson, Vidalia

COMMITTEES

COMMITTEE ON PROGRAM AND ENTERTAINMENT

Mrs. H. M. Fullilove, Chairman, Athens
 Mrs. Paul Holliday, Athens
 Mrs. W. H. Cabaniss, Athens
 Mrs. R. M. Goss, Athens

COMMITTEE ON PUBLIC POLICY AND

LEGISLATION

Mrs. J. Cox Wall, Chairman, Eastman
 Mrs. Chas. C. Hinton, Macon
 Mrs. B. H. Minchew, Waycross

COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION

Mrs. O. H. Matthews, Chairman, Atlanta
 Mrs. T. F. Abercrombie, Atlanta
 Mrs. J. W. Daniel, Savannah

FINANCE COMMITTEE

Mrs. Nichols Peterson, Chairman, Tifton
 Mrs. A. H. Black, Thomaston
 Mrs. A. S. M. Coleman, Douglas

COMMITTEE ON ORGANIZATION

Mrs. L. F. Lanier, Chairman, Rocky Ford

MINUTES OF THE SIXTH DISTRICT WOMAN'S AUXILIARY

An informal meeting was held by the wives of the doctors attending the semi-annual joint convention of the Third, Sixth, and Eleventh District Medical Societies at the Foy Hotel, Indian Springs, Wednesday, June 22, 1926.

There were present Mrs. Charles H. Richardson, Jr. of Macon, Sixth District Chairman; Mrs. Charles C. Hinton of Macon, President of the Bibb County Auxiliary; and Mesdames Harrold, Corn, Henderson, Mobley, Rogers and Winship, all of Macon; Mrs. Byron of Jackson, Mrs. Pritchett of Barnesville, Mrs. Willis of Ocilla, and Mrs. White of Flovilla. Mrs. C. W. Roberts of Atlanta, President of the State Auxiliary, and Dr. E. R. Anthony of Griffin were the guests of the day.

Mrs. Richardson presided and appointed Mrs. Winship secretary for the meeting.

After the general introductions were over, a short address of welcome from the chair was followed by an "informal and informative" talk by the State President, Mrs. Roberts. She reported the progress of the organization of auxiliaries in the State—of twelve districts, ten have auxiliaries working with the medical societies.

The work of the Auxiliaries was clearly and interestingly outlined—nationally, in the

State, and locally: nationally, to aid in all public health work and to subscribe to and sponsor the popular health magazine, "Hygeia," published by the American Medical Association.

In the State the work of the Auxiliary follows the lead of the State Medical Association—in the education of public opinion, the extension of the Ellis Health Law into the districts not already operating under it, the establishment of community hospitals and the improvement of our vital statistic records—on account of their incompleteness and inaccuracy, Georgia is one of only three states whose vital statistics are not recognized in Washington.

Locally the auxiliaries find their greatest usefulness. In the larger centres the social side is important. At the request of one of the ladies Mrs. Roberts described in some detail the social organization in Atlanta—the bridge parties to keep the treasury supplied, the monthly dances of doctors and their wives to promote good fellowship, the "love and sympathy" committee, etc. In the smaller communities the most important work of the auxiliaries is in the oversight and inspection of milk and water supplies.

The State organization was described in some detail: a president and secretary-treasurer elected from the same town, a vice-pres-

ident, and five committees-at-large—Public Health, Public Policy and Legislation, Program and Entertainment in the convention city of the year, Finance, and State Organization. The Auxiliary has a page in each issue of the State Medical Journal and a sample page was exhibited and definite instructions given for securing publication of interesting local news and reports.

Following Mrs. Robert's address, Dr. E. R. Anthony of Griffin, was introduced and read an inspiring paper on the unsung heroes and benefactors of mankind—the doctors. He recalled the great men of history whose names have become immortal—the warriors, reformers, orators, poets, painters, sculptors, and musicians. Then showed what claim to immortality the doctors have who have benefited mankind by their laboratory and public health work. He paid his respects to the country doctor and ended with a beautiful tribute to the women who have been the doctors' help-mates.

The meeting adourned to enjoy a picnic lunch and a swim in the attractive bathing pool.

Respectfully submitted,
MRS. FLORENCE WOOD WINSHIP,
Secretary.

ORGANIZATION OF THE TWELFTH DISTRICT
WOMAN'S AUXILIARY, MEDICAL
ASSOCIATION OF GEORGIA

The Twelfth District Woman's Auxiliary of the Medical Association of Georgia was organized at the home of Mrs. J. E. Mercer, Vidalia, Ga., July 7, 1926, with Mrs. T. C. Thompson, Vidalia, presiding.

The following program was rendered:

Invocation, Mrs. C. W. Williams, Vidalia.
Address of Welcome, Mrs. J. E. Mercer, Vidalia.

Response, Mrs. J. Cox Wall, Eastman.

Organization of the Twelfth District Auxiliary.

Election of Officers.

Adjournment.

After the business meeting the ladies were entertained at the local theatre.

In the evening a delightful banquet was held at the Omberg-Berenice Hotel. An interesting program had been prepared consisting of musical numbers, readings, talks by Dr. Allen H. Bunce and Dr. E. C. Thrash, Atlanta, and several physicians of the district.

Respectfully,
MRS. WARREN A. COLEMAN,
Secretary.

COMMUNICATIONS

To the Editor:

The physicians' directory has come to be an established part of a number of the state medical journals. Personally, I have heard no objections offered to the publication of such a directory. The state journals, of course, go to physicians. I have been told more than once by the secretary of one or another state medical association, that the publication of professional cards, which go to make up the ordinary physicians' directory, has been found very helpful.

OLIN WEST,
Secretary, A. M. A.

July 20, 1926.

To the Editor:

I wish to call your attention to a movement which this journal has initiated in the State of North Carolina for war on all forms of medical quackery. Also to the fact that it has succeeded in putting to rout the only quack which it has had an opportunity to attack.

Please take especial note of the Resolution passed by the Meeklenburg County Medical Society, and most especially to the sentence regarding publicity.

We very earnestly wish your cooperation in this movement.

It may be of some interest to you to know that in the election of the State Officers held in the past week in the state, in many instances the issue was one largely of Genesis vs. Modern Science, and Genesis was overwhelmingly defeated. This rather indicates that the public is not entirely simple, and encourages one to believe that if the doctors will ruthlessly expose every quack who comes among them, this same public will appreciate the service and support the doctors in a way in which they have not been supported so far.

I shall esteem it a favor if you will give me your thoughts on this subject, and tell me what action you are taking.

Sincerely yours,
JAS. M. NORTHINGTON, M.D.,
Editor Southern Medicine and Surgery.
Charlotte, N. C.

To the Editor:

We believe the Woman's Auxiliary of your state association will become an important feature of your organization. There are many lines of semi-medical advertisers which can be cultivated when advertisers know that doctors' wives and daughters, nurses, and others read the State Medical Journals. We are commending this feature of your Journal to the

Nonspi Company of Kansas City. Now they ask us to furnish them with the names and addresses of women who are officers of your state and district auxiliaries. The Nonspi Company wishes to send each woman a full-sized bottle of Nonspi free with a letter. If you will furnish us the names and addresses of such officials in your state, it may enable us to secure a renewal contract on Nonspi and may be the means of obtaining similar orders from other firms. Please let us have your reply with this information by early mail.

Very truly yours,
COOPERATIVE MEDICAL
ADVERTISING BUREAU.

To the Editor:

Enclosed is check to amount of \$9.00 in payment of insertion in the Journal of June, 1926, of our advertisement. You will please continue the advertisement in the same location.

The cost of this advertisement paid for itself six times over three days after its appearance in the Journal.

Respectfully,
THE SOUTHEASTERN SANATORIUM,
Geo. S. Pitcher, M.D., Director.

To the Editor:

I have this morning a note from you in regard to the Journal.

Allow me to say that since I had a paralytic stroke over two years ago, I am practically out of practice. Occasionally one of my old patrons drops in to see me professionally but as it has been fifty-nine years last March since the Jefferson Medical College, Philadelphia, commissioned me to go forth and do my best for suffering humanity and as I have passed my eighty-fourth birthday, it is not worth while to make a fight to regain my practice.

I am trying to accept the inevitable gracefully and bid those friends who are still in the fight God speed and great success in their glorious undertaking.

Sincerely,
JNO. G. EARNEST, M.D.,
165 Juniper St., Atlanta.

BOOK REVIEW

A Manual of Normal Physical Signs. By Wyndham B. Blanton, M.D., Associate in Medicine, Medical College of Virginia, Richmond, Va. Price \$2.50. C. V. Mosby Co., St. Louis, 1926.

This little volume of 215 pages consists of a very complete note book form of normal physical signs.

The brief and concise manner in which the contents are presented makes this a very good reference book for medical students and physicians. However, it is very necessary that the student's course of instruction be supplemented with charts, pictures and diagrams, in order that he may understand, and interpret the various normal signs intelligently.

The subject matter of this book can well be used as a frame-work about which courses in physical diagnosis can be constructed, and can be amplified by class-room instruction.

RAIFORD T. WARNOCK, M.D.

OBITUARY

Dr. Everhard Hamilton Richardson, Cedar-town, was born May 16, 1850, near Cedar-town and died at his home May 15, 1926. In 1872 he graduated from the School of Medicine, Tulane University of Louisiana. He received post-graduate work in New York, London, Paris and Berlin. After practicing medicine in Cedartown for several years he moved to Atlanta and was surgeon for the Seaboard Air Line Railway, secretary of the Board of Health for the city of Atlanta. He was a member of the Medical Association of Georgia and the First Methodist Church of Atlanta. In 1909 he moved back to Cedartown and retired from active practice. He is survived by his widow, formerly Miss Virginia Jones of Madison; two sons, Dr. E. D. Richardson, Atlanta; Dr. M. S. Richardson, Cedar-town; one daughter, Mrs. T. C. VanCleave, Louisville, Kentucky.

Dr. I. C. Deariso died on June 22, 1926, at his home, 2 South Evelyn Place, Atlanta. He was born in Sylvester, Georgia, in 1877. Dr. Deariso graduated from the Atlanta School of Medicine, now part of Emory University, in 1913 and has practiced medicine in Atlanta since that time. He made many friends and at the time of his death had a large practice. He was a member of the Masonic Fraternity, and the Bethany Methodist Church. Interment was in Sylvester Cemetery.

Dr. Lemuel J. Sharp, Commerce, died July 6, 1926, in Baltimore, Maryland. He had gone there for examination and treatment, having been in ill health for several months. He was born in 1862. He was a member of the Medical Association of

Georgia, a true southern gentleman and a consecrated christian. Interment was in Commerce.

Dr. George R. White died July 1, 1926, in Pasadena, California. He was born in 1866. He resided in Savannah and was connected with the Park View Sanitarium for many years. He was an eminent surgeon. Funeral services were held at the Independent Presbyterian Church and interment in Bonaventure Cemetery, Savannah.

MARRIAGES

Dr. George Thomas Alexander, Moulton, Alabama, was married to Miss Anne Bert Webb, 1166 Peachtree St., Atlanta, June 19, 1926.

NEWS ITEMS

The Sixth District Medical Society will hold its November meeting in Macon.

Dr. R. M. Avery, Chipley, after having completed a post-graduate course at the Eye, Ear, Nose and Throat Hospital, New Orleans, is now a member of the staff.

The Twelfth District Medical Society met in Vidalia on July 7th at the Omberg-Bernice Hotel. A large per cent of the physicians of the district attended the meeting as well as numbers from other districts.

Murrell Hospital, Eastman, is open for the treatment of patients. The hospital is well equipped with X-Ray, laboratory, and such other conveniences as are necessary in a modern hospital.

Dr. H. J. Williams, Cordele, and *Dr. R. M. Armstrong*, Augusta, are taking courses at the Eye, Ear, Nose and Throat Hospital, New Orleans.

The Chattahoochee Valley Medical and Surgical Association met in Warm Springs, Georgia, on July 13th and 14th.

The Eleventh District Medical Society met in Waycross on July 13. They had a fine selection of titles on their program and a number of papers read by the most prominent physicians of South Georgia.

Dr. Thos. R. Gaines, Hartwell, will perhaps remain in New Orleans until next year where he has been for some time taking Post-Graduate work at Tulane Graduate School of Medicine. He has recently been appointed to the staff of the Eye, Ear, Nose and Throat Hospital, New Orleans.

The next examination given by the American Board of Otolaryngology will be held in Denver, Colorado, at the University Hospital on Monday, September 13, 1926. Application should be made to the Secretary, *Dr. H. W. Loeb*, 1402 South Grand Boulevard, St. Louis, Mo.

Dr. Robert C. Pendergrass, Monroe, a graduate of Emory University, after spending two years at Grady Hospital, Atlanta, as an interne, is now associated with *Dr. J. J. Clark*, Atlanta, for the practice of medicine.

Dr. W. C. Humphries, Griffin, was the principal speaker at the Griffin Rotary Club on July 1. He is health officer for Griffin and Spalding County.

The annual report of *Miss Lillian Alexander*, Superintendent of the Public Health Nurses of Atlanta, shows that of a total of 27,555 school children examined during the year fifty per cent were found to be physically defective.

Dr. T. C. Williams, Waycross, a graduate of Emory University, class 1925, has been appointed resident physician for the John D. Archbold Hospital in Thomasville.

Dr. E. W. Glidden, Alto, has been re-elected president of the Georgia Tuberculosis Association. Members elected to the executive committee and advisory staff include *Doctors E. C. Thrash*, *T. F. Abercrombie*, and *C. C. Aven* of Atlanta.

Doctors B. T. Wise, *B. J. Wise*, and *S. P. Wise* of Plains, have purchased the building formerly owned by the Y. M. C. A. in Americus which will be used for clinical purposes. It is understood that the purchasers will continue to operate their hospital at Plains in connection with the building just purchased.

Dr. W. A. Mulherin, Augusta, read a paper on "Modern Ideas in the Treatment of Ileocolitis" at the June meeting of the Richmond County Medical Society. He proved the old idea of starvation to be obsolete. The paper was discussed by *Dr. H. P. Harrell*, Augusta. *Dr. R. L. Rhodes* read a paper on "Congenital Pyloric Stenosis."

Mrs. Julia Flournoy Moore, deceased, of Augusta, bequeathed \$10,000.00 to the Medical Department of the University of Georgia.

The Vidalia Hospital was host to the Leon Moyer Medical Society at their meeting held in June at Vidalia. *Dr. Cleveland Thompson* read a paper on "Local Anaesthetics."

Dr. R. C. Franklin, Swainsboro, has reopened his hospital and resumed his practice after taking an extended tour of Europe and completing post-graduate courses in some of the best hospitals of the east.

The Woman's Auxiliary to the Twelfth District Medical Society was organized at the home of Mrs. J. E. Mercer in Vidalia on July 7th.

Dr. F. R. Mann and family, formerly of Lumber City, have moved to McRae. He has opened a suite of offices well equipped for the practice of medicine.

Dr. R. E. Hardin, formerly of Augusta, has been elected president of the North Carolina Public Health Association.

Dr. T. Lowry, Cartersville, is building additional rooms to his property near the public library and will equip them with beds, X-Ray and other appliances for use as a hospital.

The First District Medical Society met at the DeSoto Hotel, Savannah, July 8th. After completing the Scientific program on Thursday, they went fishing Friday.

At the recent meeting of the First District Society Dr. Wm. R. Dancy, Savannah, was elected President; Dr. J. M. Cook, Sardis, First Vice-President; Dr. W. W. Evans, Haleyondale, Second Vice-President, and Dr. W. V. Long, Savannah, was re-elected Secretary-Treasurer.

During July Miss Jane VanDeVrede, Executive Secretary Georgia State Nurses Association, officially visited the University Hospital School of Nursing, the Margaret Wright Hospital and the Willenford Hospital for Women and Children in Augusta.

The University offers a wonderful opportunity as a teaching center for nurses for all these institutions and a plan was suggested which if it can be carried out will greatly facilitate the instruction for nurses throughout the State for all the affiliating schools as well as those in Augusta.

The University Hospital School of Nursing is now receiving affiliated students from seven Georgia schools and arrangements were completed to take students from two others.

All those interested in the better care of the sick will be glad to learn that the \$400,000 Health Bond issue was voted. This will assure a nurses' home and relieve the congestion in both the white

and colored schools and free hospital beds for patients' use.

The John D. Archbold Memorial Hospital at Thomasville was also recently visited. Miss Lillian Cumbee has been appointed Superintendent of Nurses and Miss McLaughlin Instructor. This institution can be made an ideal school of nursing from the standpoint of the small hospital. Every facility for the care of the sick has been provided. There is a colored school of nursing connected with the colored wing of the hospital which should widen the opportunities of training colored nurses.

The Little-Griffin Hospital at Valdosta was also visited. The owners are planning to add several rooms to increase the bed capacity of the hospital and are planning other improvements.

The Inter-State Post Graduate Assembly of North America will be held at Cleveland, Ohio, October 15th to 22nd, inclusive.

SYPHILIS IN FRANCE

Jeanseime, E., and Burnier. *Bulletin de l'Academie de Medecine, Paris*, 95: p. 214 (March 9, 1926).

Jeanseime and Burnier compare the statistics of new syphilitic infections in France and in other countries during the last six years. While the number of recent cases of syphilis has been decreasing in Belgium, Switzerland, Denmark and Austria, it has been increasing among workers in France. This fact seems to be due in part to the afflux of foreigners and natives of French colonies. It is not imported virus which is accused, since 82 per cent of the newcomers contracted their syphilis in France. At the St. Louis Hospital, Paris, the new infections formed 50 per cent of the total in 1919; then dropped to 31 per cent in 1923, and climbed to 60 per cent in 1925. Another factor in the increase is the tendency of French physicians to replace arsphenamine by bismuth, which is considered by Jeanseime and Burnier as less effective in treatment of syphilis.

REPORT OF THE CANCER COMMISSION

(Continued from page 324)

cer lesions who heretofore paid little attention to these matters until it was too late.

Last year we sent a questionnaire to every member of the Association, but there were very few answers; however, the answers that we received, indicated that the members of the Association were deeply interested in the

subject and were cooperating in our efforts to teach the public the value of early diagnosis.

Early in the fall I had a conference with some of our friends and we decided that it would be wise to relax, somewhat, our efforts at publicity and try harder to reach the members of the profession. Recently I addressed a letter to the presidents of all county societies asking them to call the attention of their members to a few important facts in connection with the subject and try to have a special meeting devoted to the study of cancer. I also sent a letter to the American Society's county chairmen and requested them to cooperate with their county society and, also, to try to interest the Parent-Teachers Association in this branch of Public Health Work.

The American Society for the Control of Cancer has volunteered to send to each county a quantity of their literature for public distribution, which I have requested them to do, and have sent them a list of the men whom I feel sure will do all they can to help in this work.

Recently I have prepared a series of articles on Public Health and Cancer Control. In the former I pointed out what has been done for the people by the medical profession, and in the latter what we are now trying to do by education. These articles are now running in four weekly papers—one published by the negroes, the others are the Christian Index, Baptist, the Christian Advocate, Methodist, and the Journal of Labor—the organ of organized labor in Georgia. Through the medium of these publications we hope to reach 100,000 people.

I feel that a greater effort should be made to bring the subject of cancer to the attention of the county societies and urge them to insist that people who have suspicious symptoms consult their family physician and have a semi-annual examination as an assurance against cancer, as well as other conditions that might be detected.

Respectfully submitted,

J. L. CAMPBELL, Chairman,
Cancer Commission, Med. Asso. of Ga.

Dr. Thrash moved the adoption of this report.

Motion seconded and unanimously carried.

Dr. Miller moved to adjourn until 8:00 A.M., Wednesday.

Motion seconded and carried, and the House of Delegates adjourned at 10:15 P.M.

RESOLUTION ADOPTED BY THE CHICAGO MEDICAL SOCIETY

By R. R. Ferguson, Chairman of the Council.

The following is a copy of the resolution:

Whereas, The American Public Health Association at its Annual Meeting in St. Louis, in October, 1925, listened to an Address by one of its members, favoring a new doctor in each community where a Health Officer is needed, to be known as a Doctor of Public Health, and

Whereas, Several institutions of learning have introduced courses in Public Health whereby a layman as well as a physician, may be instructed and in a comparatively short time qualify as a Doctor of Public Health, (D. P. H.) and be allowed to advise, qualify and practice preventive medicine, and

Whereas, In all probability a Bill to license a so-called D. P. H., will be introduced into the next Session of the State Legislature of Illinois, and

Whereas, The Chicago Medical Society believes that all Health Officials should first be physicians, (M.D.), who have the proper knowledge of the sciences concerned in Public Health, and that such knowledge cannot be gained by any layman in two or three years, and

Whereas, Such an arrangement of a layman being a Health Official, places a double expense on the community, since it is necessary for the community to then procure the service of an M. D., in addition to a layman, and

Whereas, The State confers on an M. D. the right to practice medicine and surgery in all its branches, while the special licensing of a D. P. H. would be special legislation tending to take from an M. D. that right.

Therefore Be It Resolved, That the Chicago Medical Society believes all positions of trust pertaining to Public Health in any community should be held by physicians, (M.D.) and not by laymen holding D. P. H. licenses, and

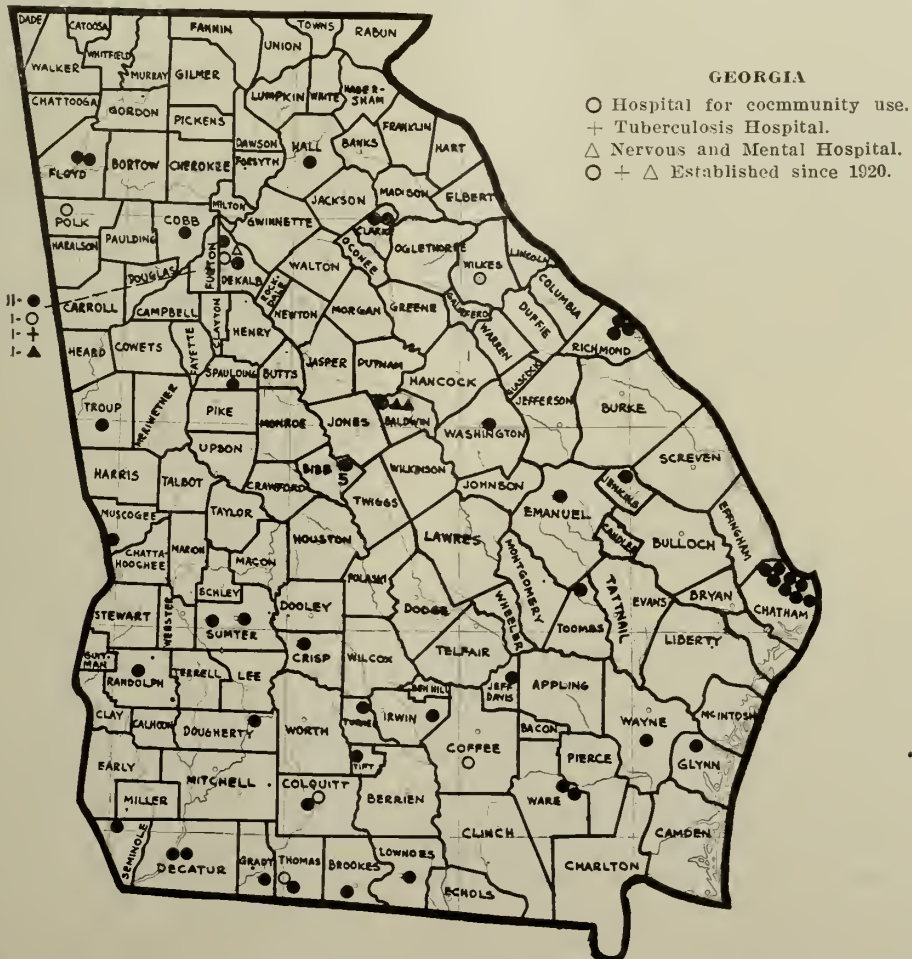
Be It Further Resolved, That the Chicago Medical Society views with displeasure any move on the part of the American Public Health Association, which may express a desire to replace physicians as Health Officials by laymen with D. P. H. licenses, and

Be It Further Resolved, That a copy of this resolution be sent to the American Public Health Association; to all those institutions of learning where courses in Public Health are given with a view to conferring a D. P. H. Degree; and to every State Medical Society with a request that their component County Societies be made acquainted with the proposed activities of a Public Health Association, whose President is a layman.

Motion was carried that this Resolution be adopted.

BED CAPACITY OF GENERAL HOSPITALS AND DAILY AVERAGE IN CONSTANT USE IN GEORGIA DURING 1925

	Total Av. Beds Beds in Use			Total Av. Beds Beds in Use	
Albany, 14,451—Dougherty			Donaldsonville, 747—Seminole		
Phoebe Putney Memorial Hospital.....	40	20	Chason's Hospital	40	36
Americus, 9,010—Sumter			Douglas, 3,401—Coffee		
Americus and Sumter County Hospital	30	18	Clark and Smith Sanitarium.....	14	6
Athens, 18,787—Clarke			Emory University, —DeKalb		
Athens General Hospital, Inc.....	75	30	Wesley Memorial Hospital*	300	106
St. Mary's oHspital.....	50	23	Gainesville, 6,272—Hall		
Atlanta, 200,616—Fulton			Downey Hospital, Inc.....	52	16
Atlanta Hospital	25	13	Griffin, 8,210—Spalding		
Blackman Sanitarium	40	30	Griffin Hospital	50	18
Battle Hill Sanitarium (T. B.).....	177	165	Jesup, 1,415—Wayne		
Augusta, 55,245—Richmond			Dr. T. W. Causey's Sanitarium.....	15	10
Margaret Wright Hospital.....	20	11	LaGrange, 23,523—Troup		
University Hospital*	261	148	Dunson Hospital	40	24
Willenford Children's Hospital.....	50	23	Macon, 58,237—Bibb		
Bainbridge, 4,792—Decatur			Lundy Hospital	24	15
Bainbridge Hospital	30	23	Macon Hospital*	125	96
Riverside Hospital	24	16	Middle Georgia Sanatorium.....	50	17
Barwick, 381—Brooks			Oglethorpe Private Infirmary.....	22	14
Sanchez Private Sanitarium.....	15	6	Pumpelly-Massenburg Sanatorium	30	24
Brunswick, 16,809—Glynn			Marietta, 6,190—Cobb		
Brunswick City Hospital.....	50	20	Nolan Sanitarium	16	4
Cairo, 1,908—Grady			Milledgeville, 4,619—Baldwin		
Dr. Walker's Sanitarium.....	15	8	Allen's Invalid Home (N. & M.).....	127	80
Cedartown, 4,053—Polk			City Hospital	20	10
Hall-Chaudron Hospital	125	58	Millen, 2,030—Jenkins		
Cordele, 6,538—Crisp			Millen Hospital	20	6
Cordele Sanatorium	12	5	Moultrie, 6,739—Colquitt		
Cuthbert, 3,210—Randolph			The City Hospital.....	10	5
Patterson Hospital	21	10	Newnan, 7,037—Coweta		
Decatur, 6,150—DeKalb			Newnan Hospital	30	8
Georgia Sanitarium	12	4	Plains, 611—Sumter		
Scottish Rite Hospital.....	64	60	Wise Sanitarium, Inc.....	60	24



	Total Beds	Av. Beds in Use
Rome, 13,905—Floyd		
Frances Berrien Hospital	25	13
Harbin Hospital	75	25
Sandersville, 2,641—Washington		
Rawling's Sanitarium	100	53
Savannah, 93,134—Chatham		
Charity Hospital	42	20
Georgia Infirmary	80	55
Oglethorpe Sanatorium	50	25
Park View Sanitarium	50	50
St. Joseph's Hospital	125	96
Savannah Hospital	65	40
Telfair Hospital	52	35
Stone Mountain, 1,062—DeKalb		
The Cheston King Sanitarium, Inc. (N. & M.)	35	22
Swainsboro, 1,313—Emanuel		
Franklin-Coleman Hospital	15	8
Thomasville, 8,196—Thomas		
John D. Archbold Mem. Hosp.	94	34
Tifton, 3,005—Tift		
Coastal Plain Hospital	10	6
Valdosta, 12,554—Lowndes		
Little-Griffin Private Hospital	30	13
Vidalia, 1,776—Tombs		
Vidalia Hospital	25	15
Washington, 3,063—Wilkes		
Washington General Hospital	20	5
Waycross, 20,098—Ware		
Atlantic Coast Lines Hospital	90	40
King's Daughters' Hospital	35	25
Five General Hospitals of less than 10 beds	37	16
Total for community use, 74	4,395	2,613

In Georgia the following one hundred and ten counties have no hospitals for community use: Appling, Bacon, Banks, Bartow, Ben Hill, Berrien, Bryan, Bulloch, Burke, Butts, Calhoun, Camden, Campbell, Candler, Carroll, Catoosa, Charlton, Chattahoochee, Chattooga, Cherokee, Clay, Clayton, Clinch, Columbia, Coweta, Crawford, Dade, Dawson, Dodge, Dooly, Douglas, Early, Echols, Effingham, Elbert, Evans, Fannin, Fayette, Forsyth, Franklin, Gilmer, Glascock, Gordon, Greene, Gwinnett, Habersham, Hancock, Haralson, Harris, Hart, Heard, Henry, Houston, Jackson, Jasper, Jefferson, Johnson, Jones, Laurens, Lee, Liberty, Lincoln, Lumpkin, McDuffie, McIntosh, Macon, Madison, Marion, Meriwether, Miller, Milton, Mitchell, Monroe, Montgomery, Morgan, Murray, Newton, Oconee, Oglethorpe, Pickens, Pierce, Pike, Pulaski, Putnam, Rabun, Rockdale, Schley, Screven, Spalding, Stewart, Talbot, Taliaferro, Tattnall, Taylor, Telfair, Terrell, Towns, Twigg, Union, Upson, Walker, Walton, Warren, Webster, Wheeler, White, Whitfield, Wilcox, Wilkinson, Worth.

—JOUR. A. M. A., April 3, 1926.

TRUTH ABOUT MEDICINES

NEW AND NON-OFFICIAL REMEDIES

Tribasic Calcium Phosphate—Tertiary Calcium Phosphate

Tribasic calcium phosphate contains approximately 85 per cent of $\text{Ca}_3(\text{PO}_4)_2$. It has been proposed for use as an antacid. It has the advantage over alkaline hydroxides, such as magnesium hydroxide, and alkali carbonates, such as sodium bicarbonate, in that, being insoluble, it neutralizes the excess of acid in the stomach but does not produce systemic alkalization. It has been claimed that tribasic calcium phosphate is somewhat constipating.

Calcium Phosphate Tribasic—P. W. R.—A brand of tribasic calcium phosphate—N. N. R. Powers-Weightman-Rosengarten Co., Philadelphia.

RABIES

There is altogether too much "street virus"—too many mad dogs running about the city streets and country turnpikes. They carry death and disaster with them.

How terrifying the outlook would be if there had been no Louis Pasteur to show us how to save the lives of people bitten by mad dogs! Not less than a hundred thousand lives have thus been saved—no one can give the exact figures; but Parke, Davis & Co., who have been marketing a modification of the Pasteur vaccine (a modification in the interest of safety), state that they have sold not less than 10,000 full courses of this vaccine, thus saving, according to estimates based on the statistics of untreated cases, at least 3,000 lives. It would be safe to say 10,000 but for the fact that, while rabies is invariably fatal, it does not invariably develop from the bite of a rabid animal. The clothing may protect, or the virus may be washed out by the escaping blood. Nevertheless, any such wound is exceedingly dangerous.

The P. D. & Co. brand of rabies vaccine is called Rabies Vaccine (Cumming), because it was Dr. Cumming, of Ann Arbor, Mich., who discovered the dialyzing method of eliminating the toxicity of rabies virus without impairing its protective properties.

ADRENALIN

In the process of Adrenalin therapy, the chemist's proof that an active principle could be isolated in pure form from the suprarenal gland was only the first step. Commercial production was necessary—another step. And it would have been wonderful, indeed, if questions of purity, stability, compatibility, etc., had all been mastered at the very outset. It is reasonable to suppose that the manufacturers have endeavored by constant study and experimental research work to make their product as perfect as it could be made. Speculation of this sort is, however, hardly necessary. Adrenalin has kept its good name, and is entitled to the fullest confidence of the medical profession. (See the Parke, Davis & Co. advertisement elsewhere in this issue.)

SQUIBB BRANCH OFFICE IN NEW ORLEANS

In the course of a swing through the Southern States, General Sales Manager R. D. Keim, of E. R. Squibb & Sons, recently completed arrangements for the opening of a branch office in New Orleans, La. This office, to be located in the Queen Crescent Building at 344 Camp Street, will carry a complete stock of biologicals, arsphenamines, insulin and a selected list of other Squibb specialties. The purpose is to provide the medical, dental and pharmaceutical professions of Louisiana, Mississippi and neighboring states with fresh stocks of these products, kept under proper refrigeration at all times and available any hour of any day.

Mr. Keim was accompanied on his southern trip by R. S. Westgate, Assistant General Superintendent of the Brooklyn Laboratories of E. R. Squibb & Sons. They were joined en route by Southern States Sales Manager W. S. Iversen, of Atlanta, and Office Manager, J. J. Toohy, of Kansas City Branch.

UNUSUAL BILE DUCT VISUALIZATION BY ROENTGENOGRAMS OF BARIUM MEAL

Edwin Habbe, Boston and Lester A. Smith, Indianapolis (*Journal A. M. A.*, Feb. 13, 1926), report a case in which the intrahepatic bile ducts were filled by the barium meal, evidently through a spontaneous cholecystoduodenostomy, and were clearly visualized. It is suggested that the bile ducts are probably filled in a similar manner by duodenal contents, after meals, particularly when the patient lies down after eating. The retention of the barium in the ducts indicates that food material, with its accompanying bacterial content, must be present in the bile ducts at all times. Although this marked abnormality has been present probably for five years, it has caused no functional change, so far as can be determined by the usual liver function tests.

COOPERATING WITH YOUR PHYSICIAN

To the steadily increasing number of pharmacists who are handling biologics, and who realize the rapid growth of the tendency of the medical profession to employ these therapeutic agents in their practice, the announcement that the United States Public Health Service has issued to E. R. Squibb & Sons the first license ever granted for the manufacture and sale of *Erysipelas Antitoxin* is of the utmost importance.

AUTOHEMAGGLUTINATION IN CHRONIC LEUKEMIA

True autohemagglutination has been observed by Harry L. Alexander and Lawrence D. Thompson, St. Louis (*Journal A. M. A.*, Nov. 28, 1925), in a case of chronic leukemia of undetermined type. The autohemagglutination satisfies the criteria established by Landsteiner, Yorke and Clough and Richter, by possessing the following characteristics: (a) Agglutination occurs only at temperatures below body temperature. (b) The agglutinated cells disperse when the temperature is raised again to body temperature. (c) The agglutinin will act in like manner on human cells and on cells of various animals. The patient's symptoms at one time suggest that he had paroxysmal hemoglobinuria, although no auto-hemolysin could be demonstrated recently.

THE REPAIRED HEART

In the case reported by James L. Fisher, Youngstown, Ohio (*Journal A. M. A.*, Jan. 16, 1926), the heart, in which a large laceration had been sutured, was called on in three weeks to endure the added strain of a severe bronchopneumonia. The heart behaved satisfactorily in every respect, with the exception of the rate. Although rapid, the pulse was at all times regular in time and the beats equal in volume. At the time of maximum lung involvement, the circulation was only moderately embarrassed. Digitalis in the dosage given exhibited but little effect in slowing the heart. It is assumed that the vagus stimulation was not sufficient to overbalance the increased irritability of the myocardium. The presence of nonabsorbable suture material would perhaps tend to prolong the irritability.

PROTEIN THERAPY

Treatment of Anthrax.

F. Destefano and R. F. Vaccaroza.

Semana Medica. 1:165. Jan. 28, 1926.

The mortality was 10.93 per cent in 192 cases in which a 5 per cent solution of peptone was injected intramuscularly once or twice a day until the general symptoms subsided. It was 15.85 per cent in eighty-two treated exclusively with anti-anthrax serum, and 29.41 per cent in the seventeen treated exclusively with normal beef serum. Excluding cases in which death occurred within two days, those figures became respectively, 9.04 per cent for peptone; 10.38 for antiserum, and 25 per cent for normal beef serum. The peptone parenteral protein therapy seems to be not only more effectual, but it does not induce serum sickness.

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ATLANTA, GEORGIA

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Volume XV

Atlanta, Ga., September, 1926

No. 8

Original Articles

A CASE OF AMYOTONIA CONGENITA, WITH A REPORT ON THE BASAL METABOLISM AND BLOOD CHEMISTRY*

E. BATES BLOCK, M.D.

Atlanta

Professor of Neurology, Emory University

The case reported in this paper is of unusual interest for several reasons. The vast majority of the cases in the literature were in children, most of them in infancy, and none of them over thirteen years of age, with the single exception of the case reported by Hartenberg (age 50). The difficulty and unreliability of a neurological examination in infancy, especially in regards to such tests as require the co-operation of the patient, and even a study of the reflexes, is well known. It, therefore, seems desirable to present in detail a case report in a girl of eighteen years, in whom these difficulties do not exist. We are fortunate also in being able to add, to the very scanty literature upon the subject, the basal metabolic tests and blood chemistry. Pearce found a "definitely lowered basal metabolism," and a lowered creatinin excretion was reported by Pearce and also by Gittings and Pemberton (0.016) who quote Spriggs (0.06) as finding similar results. In Pearce's case the blood creatinin was normal. In the case of Griffith and Spiller the thyroid gland was exceedingly small but microscopically showed nothing distinctly abnormal.

*Read before the Medical Association of Georgia, Albany, Ga., May 12, 1926.

Pollak's statement that the thyroid gland was not palpable in his case (4-month old child) is not conclusive as this is often the case with normal infants, but he quotes Baudoin as reporting a sclerosis of the thyroid and thymus glands. (Baudoin's paper has not been accessible to me.) Holmes found the thyroid gland normal both in gross and microscopical examination.

Miss X, age 18 years, was seen first on September 6, 1924.

C. C. Bruises easily, abnormally soft flesh. Heart fast, endurance poor.

F. H. Father living and well. Mother living and well. Patient is only child. Mother had one miscarriage. Tuberculosis, paternal uncle and paternal grand aunt died from tuberculosis. Malignancy, paternal great grandfather died from cancer of the throat and two paternal great uncles died from cancers of the throat and mouth. One paternal grand aunt had cancer of the uterus. No nervous or mental diseases in the family. Father is one of eleven children and mother one of nine children. No trouble like this in any of the family and both sides of family were very tall—all men six feet or more. Father is five feet nine inches and his father was six feet four and a half inches. Her father's sister's daughter, age 17 years, is very limber. She can bend backward and stand on her feet and hands and can kick her head. She can bend her index finger back and touch the back of her hand but has not the same disease as this patient.

P. H. Born full term, no instruments, breech presentation. Not jaundiced. No con-

vulsions, not cyanosed. *Sat alone* at age 5 months. *Cut first tooth* between 5 and 6 months. *Walked* at age 12 months. *Talked* at age 8 months. Began to say words at age 6 months. *Cut teeth* in right order and early. Measles between age 5 and 6 years, no complications. Whooping cough one year later. Has had no pneumonia. Dengue fever age 10 years. Fell and broke out 4 upper front teeth at age 9 years. Right ankle broken at age 14 years, again in same place one year later, fibula. No operations. No tonsillitis. Rheumatism following influenza in October, 1918, all over, in muscles and joints. Lasted for a day or two at a time for two or three years. No trouble with ears. Eyes good. Teeth good. Breathes well through nose, both sides. Menses began between age 14 and 15, regular, duration 5 or 6 days, flow scant, very painful first day. Mother felt fetal movement from 4½ months until patient was born and seemed normal. Born full term and weighed 11½ pounds at birth. She had colitis the second and third summers and after that was pale and constipated and was emaciated for two or three years after that.

P. I. Her trouble dated from birth. All joints were abnormally limber. There has been always abnormal softness of the flesh which is worse in the hands and arms and feet. Her muscle strength seems very good. (v. i.) She plays the piano well. Her hands are very wrinkled and dry yet the patient perspires freely and the hands are cold and damp part of the time. Her flesh has been abnormally soft ever since birth. There is no tremor, the nerves are steady and she is not excitable.

Neurological Examination—

Emotional state, not emotional.

Headache, absent.

Sleeps well.

Dreams occasionally, good and bad.

Mental rate, 54 3/5", five mistakes.

Memory good.

General knowledge, 90+ in school. This is her first year in college. Finished high school. Seems normal mentally.

Cranial Nerves—

N.1. Smell, Perfume R+ L+, Asafoetida

R+ L+, Cloves R+ L+, Mint R+ L+.

N.2. Vision, near good, far good. No color blindness or other eye defect.

N.3-4-6. Pupils equal. Light +, Accom. +. No nystagmus. Muscles good.

N.5. Motor good. Sensory good.

N.7. Normal movements of all facial muscles, but the face has a doll like expression. The lid fissures are wide and have always been so and the eyes have always been prominent. Her father also has the same type of eyes and palpebral fissures and also very wrinkled skin.

N.8. Hearing, right ear 10 inches, left 6 inches. No Romberg. No paraesthesia.

N.9. No nausea, no dysphagia. Sense of taste normal.

N.10. No vomiting. Pulse 15 to 16 to ¼ minute. Blood pressure 124-70. Respiration 20 to the minute.

N.11. Good.

N.12. Good.

Taste—

Rt. Ant. Acid + Sweet + Bitter + Salt +

Lt. Ant. Acid + Sweet + Bitter + Salt +

Rt. Post. Acid + Sweet + Bitter + Salt +

Lt. Post. Acid + Sweet + Bitter + Salt +

Speech, no dysarthria, dyspraxia or aphasia.

Motor. No abnormal muscular movements.

Muscle strength only fair, easily fatigued. Right grip 43, left 37. She used to be left handed, but was trained to use her right hand. Her endurance is poor and she tires more quickly than other girls. Tests of the muscles of her arms and legs are all less strong on resistance than normal but there is a fair amount of power in all the muscles. She does not attempt to play any games because she gets tired so quickly. The muscles are abnormally soft and do not harden greatly when voluntarily contracted. The facial muscles harden more than the arms and legs when contracted.

Tonus, marked flaccidity, hypotonia of all joints except spine. There is remarkable hyperextension of all the joints. She was formerly able to lay the dorsum of all of her fingers flat on the dorsum of her hands and she can still lay her thumb back on the dor-

sal surface of her forearm. The hands can be rolled up completely and become smaller than the wrist. The whole thumb can be laid against the metacarpal and digits of the little finger perfectly flat. The feet can also be folded up completely. Abnormal flexibility is most marked everywhere. She can approximate her shoulders in front more than normal but not backward. The thumb can be wrapped around the inner side and back of the little and ring fingers to touch the middle finger on the dorsum. She used to do the "big split" with her legs when a child but has not attempted it since age 8 years. Sitting with her legs straight on the floor she can touch her nose to her knees. She can bend backward further than most people. When a child she could sit on the floor and abduct her thighs till her thighs and legs were in a straight horizontal line to her sides, with her heels resting on the floor.

Co-ordination. Gait a little waddling in pelvis. No Romberg. Diadochokinesia good. Finger nose + Finger finger + Fingers with feet +.

Trophic, marked disturbance, congenitally. See notes on her nutrition and skin. There is no muscular atrophy to be made out on clinical examination.

Reflexes, deep—

Right. Jaw + Biceps + Triceps + Radial + Ulnar + Patel. + Achil. +

Left. Jaw + Biceps + Triceps + Radial + Ulnar + Patel. + Achil. +

Superficial reflexes—

Right. Gag 0 Up. ab. + L. ab. + Plan. + Babin. 0

Left. Gag 0 Up. ab. + L. ab. + Plan. + Babin. +

The left sole reflex is sometimes flexor and sometimes extensor.

Tapping the dorsum of the cuboid bone causes extension of the toes of both feet. The right sole reflex is always flexor.

Clonus is absent.

Sensation. Touch good. Pain and temperature sense normal. Muscle sense good. Joint sense good.

R. 3-6-9-12-15-18

Baric sense —————

L. 3-6-9-12-15-18

Stereognosis good.

Nutrition. Weight 178. Height 5 ft. 8 in. Normal 138. She began to grow rapidly after age 4 years. She was a large, fat baby. She has lost 12 pounds in the last year (was 190). She is abnormally fat on the fronts of the thighs and buttocks but there was never much prominence of the abdomen. The fat is well developed and remarkably soft over her whole body.

Electrical tests. No reaction of degeneration but some muscles required more than a normal strength of current to produce a contraction. *Secretion.* There are no anomalies of secretion. Vesical functions good control. Rectal functions good control.

Vasomotor. She likes warm weather better than cold, and gets very chilly. Dermatographia is present.

Fever, temperature 99.4, 98.

Ears, ear ache year ago, ear. Ears small, lobes attached.

Nose very narrow, rather small.

Teeth, 4 upper front teeth on plate, knocked out age 9 years.

Glandular. Tonsils are negative. Thyroid negative on palpation.

Integument. Pigmentation normal. The skin, a slight blow causes hemorrhage under or in the skin and a large mass may form. Cutaneous ecchymosis often appear without any knowledge of trauma. She bruises easily. The skin is remarkably loose and altho the patient is rather fat it can be lifted up and stretched like India rubber, even in the palms of the hands and on the soles of the feet. The ability to stretch her skin is most marked over her knees and thighs, elbows and forearms where it can be pulled out to more than the diameter of the extremities at those points. The looseness of the skin is evident everywhere and on touching her the skin seems to recede softly like jelly (fugitive skin).

The palms of the hands show a thousand wrinkles, and are very withered looking and feel velvety. The skin on the face and scalp does not seem abnormally loose, but her face feels remarkably soft. The finger nails are not thin nor soft, and not abnormally movable. Her hair falls out more than normal. Hair blond, medium caliber. Hair on body

average for her age. Eyebrows heavy. No jaundice. Moles on the chest and neck.

Breasts poorly developed.

Lungs negative. Cough rarely. Sputum, small cheesy masses occasionally. No night sweats. No blood, pain in chest or dyspnoea. Respiration 20. Heart, thrill and presystolic murmur over body of heart and pulmonic space, not to apex or beyond. Heart trouble

114-70.

dates from birth. Blood pressure ——— No
124-70.

varicose veins. The pulse varies from 12 to 17 to $\frac{1}{4}$ minute but becomes fast upon exertion.

Abdomen negative. Feminine crines. No hernia. Liver, spleen and kidneys not palpable. Stomach normal size and position. Appetite good. No pain, does not taste food after eating. No nausea, vomiting or heartburn.

Intestines, with flatulence sometimes. Constipation marked, goes 3 or 4 days without a movement. No mucus. Piles all her life. No blood or diarrhoea.

Menses began age 14 or 15. Frequency regular every 28 days. Duration 5 or 6 days. Quantity scanty. The menses are very painful the first few hours and she cries with it and is in bed for several hours. There is backache with her menses and a feeling of pressure in the vagina. At times the menstrual discharge has a dark color and there is an offensive odor for a week before and during the menstruation.

Urinary. No dysuria, diuria normal. No hematuria or stones. Nocturia rarely.

Bones and joints. There is marked pes cavus in both feet. All of her bones are extraordinarily small.

Spine not abnormally flexible forward or backward but can bend forward when standing with knees stiff and place palms of hands on the floor. She suffers much from backache in the lumbo-sacral region. When sitting without her clothes her back is very straight and flat all the way down. When standing there has always been a marked ensellure.

Laboratory—

Blood—Haemoglobin 70%
Red blood cells 3776000
Leucocytes 10,400

Wassermann, negative.

Urine—Color, amber, slightly cloudy.

Sp. gravity, 1.025.

Acidity, 70%.

Albumin absent.

Sugar absent.

Indican, 4.

Microscopically: a few mucus strands, an occasional leucocyte and a few bacteria.

Basal metabolic test—24.

Blood chemistry—

Blood constituents.

Sugar 103.0 mgs.

Non-protein nitrogen 29.1 mgs.

Urea 13.2 mgs.

Creatinin97 mgs.

Uric acid 1.56 mgs.

Dr. Stewart Roberts reported that x-ray examination of her heart showed left ventricular hypertrophy and prominence of the pulmonary artery. The electrocardiogram is normal except for a rate of 100.

On September 29, 1925, patient laid down for a nap, seemed perfectly well but died during sleep, probably from heart failure.

An autopsy was not permitted.

From a clinical standpoint the case showed evidences of hypothyroidism even without the added evidence of a lowered basal metabolic rate. The physical discomfort on exposure to cold, the falling out of her hair, the slow pulse are all suggestive. A very remarkable feature of the case, however, was the fact that while she felt better subjectively and stated that she felt stronger while taking thyroid gland by mouth, her pulse became slower, instead of faster while taking it, and would become faster again after leaving it off. Thus while taking thyroid gland her pulse fell as low as 12 to $\frac{1}{4}$ minute and when it was left off as fast as 17, and once even 19 to $\frac{1}{4}$ minute. Whether or not this represented a type of heart block produced by the administration of thyroid gland is not known. Also the exact nature of her heart trouble is uncertain and probably represented a congenital malformation the exact nature of which was not determined. The patient was seen last May and died in September and was taking no treatment at the time of her death. Her blood co-

agulation time was unfortunately not recorded on her history, but was longer than normal and her bruises disappeared under the use of calcium lactate.

It will be noted that the sole reflex in the left foot was sometimes flexor and sometimes extensor. This is probably to be attributed to a retention of the infantile type of reaction in this patient and not to any suspicion of involvement of the primary motor neuron. The Babinski type of reaction was noted in five of the cases cited by Reuben and in Spiller's case (Penn. Med. Bull.) "plantar irritation causes extention of the left side but the movement is uncertain on the right side." Also in Van Westrienen's case the Babinski sign is present on and off. It is not my intention to give a full or statistical account of the disease for this has been done already by Reuben in his very complete review of the literature, but it may be well to mention briefly the divergent opinions expressed by various writers in reference to the pathology and symptomatology of the disease.

Thus Spiller found no changes in the nervous system and regarded the muscles as being the seat of the disease, while Holmes found the large cells in the anterior horns of the spinal cord absent or poorly developed as well as finding in the affected muscles some hypertrophied bundles and some undeveloped bundles of embryonic type with groups of increased nuclei.

The status of the disease has been still further confused by the transition forms which seem to exist between amyotonia congenita and congenital familial spinal muscular atrophies, especially the Werdnig-Hoffmann type.

Krabbe's conclusions are that the cases which have been described as amyotonia congenita represented really two different diseases.

(1) One of these, amyotonia congenita (myatonia congenita) is a benign disease, which consists of a congenital hypotonia, hyperflexibility and weakness, but no atrophies. If the patient does not die from intercurrent diseases, it may be assumed that he is cured. It is not familial and can possibly be considered as a retarded development of the muscles.

(2) From this true amyotonia congenita must be separated the following: The cases first described by Beevor, Sorgenti, Silvestri and Skoog. Secondly the cases in which, at the autopsy, atrophy of the anterior horn cells and muscles was found. They are Rothmann's, Reyer-Helmholtz's, Archangelsky, Abrikosoff's, Marburg's, Collier-Holmes', Griffith-Spiller's, Laignel-Levastine-Voisin's and Kaumheimer's-Batten's, Howard's, Wimmer's, and Jendrassik's cases, and the six cases reported by him.

It does not seem to me that the presence of heredo-familial factors is any argument as to whether the disease is to be regarded as amyotonia congenita or one of the somewhat similar cases of muscular atrophies or dystrophies. The main differential points seem to be that in amyotonia congenita the development of the peripheral motor neurons and muscles are delayed and tend to continue developing and improving after birth so that the patients if they do not die of some intercurrent disease may eventually become approximately normal. There is no atrophy of muscles in volume to be detected clinically and becoming progressive as the child grows older, and the disease does not start in a child who was previously well and lead to a gradually developing infeeblement. Often in the literature hypotonia is unduly stressed as being indicative of the disease (amyotonia congenita) whereas in reality it is only one of its symptoms. The remarkable hyperflexibility, the generalized distribution of the disease, the absence of reaction of degeneration and atrophy, the fugitive and India rubber skin, and the existence since birth, with gradual improvement as the patient becomes older should all be stressed as part of the clinical picture.

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REPORT OF A FEW CASES ILLUSTRATING THE FALLACY OF INDIGESTION AS A DIAGNOSIS*

J. C. PATTERSON, M.D.

Cuthbert

Careful clinicians have long stressed the necessity of an exact diagnosis in gastro-intestinal troubles. Despite this fact, "indigestion" is still a popular diagnosis with the laity, and I fear, some of the profession.

There is no more reason for making a diagnosis of indigestion than there is for making a diagnosis of "fever" or "high blood pressure."

The causes of the symptom complex called "indigestion" are many and varied. Disease of almost any organ of the body may cause these symptoms, as Cabot showed in 15,000 cases complaining of indigestion 80 per cent were non-gastric while only 18 per cent were gastric in origin.

Martinet gives as the causes the following:

First, extraneous, causes that reflexly cause indigestion, as pregnancy, uremia, alcoholism, inanition, tuberculosis, angina pectoris, gastric crises of tabes, arteriosclerosis, cholecystitis, cancer of large intestines and chronic appendicitis.

Second, functional, are bad teeth, too rapid eating, aerophagia, psychoneurosis, mental depression and over work. The most frequent organic are ulcer and cancer.

Probably the majority of cases that complain of indigestion persistently and over a long period of time are either gall-tract disease, cancer or ulcer.

It is not my intention to take up these causes in detail, but to report a few cases that had abrupt terminations of their "indigestion" thus showing that there is sometimes real danger in treating these cases without an exact diagnosis.

First case No. 826, J. N., negro man, age 56, referred by Dr. Jenkins Edison.

Past history unimportant except that he had mild indigestion for years, would take soda and usually get relief, did not think his

pain had any reference to his meals nor did he think eating relieved him.

His present trouble began this morning, July 25, 1925, just after breakfast with severe pain around the naval, which caused him to stop work and send for a doctor. Morphine only lulled his pain, which seemed to settle in his right side. On admission, he had a temperature of 100.8° F., pulse 88, abdomen very rigid and hard, so much so that an ulcer was suspected and a high right rectus incision made, there was some plastic exudate on intestines, the appendix was kinked and firmly bound down, chronically inflamed, but did not seem to be sufficient to cause his symptoms, so examining his gall bladder it was found to be greatly distended and the incision was extended upward, exposing a greatly distended gall bladder and a rupture of a duodenal ulcer thru which gastric juice was exuding, this was sutured over and his gall bladder drained. He made a noneventful recovery, was put on an ulcer diet and when seen three months later had gained twenty pounds.

Case No. 2, Case No. 849. L. M. T., negro woman, 26 years old, referred by Dr. Crook.

Family and past history unimportant, except that for the last four years she had been complaining of indigestion at times irregular indigestion, mostly gaseous distention with severe constipation. Since 1923 she has had spells when she wished to have bowel movement and could not. At times she passed blood and mucus in her stools. February, 1923, she noticed a "knot" in her right side, which later moved to her left side.

Constipation became worse. She had to take purgatives all of the time, and began to lose weight. January, 1924, she began to have spells of severe pain in abdomen at which time there was visible peristalsis, and gaseous distention, nausea, and vomiting until bowels were moved with either purgatives or repeated anemas. These spells became more and more frequent until August 15, 1925, when she was admitted in an attack of acute obstruction with a high fever. At this time it was impossible to get her bowels open, so an immediate operation was necessary. On opening her abdomen the obstruction was found to be due to a growth in her sigmoid colon. Because it

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would have certainly killed her to try to resect at this time, we simply put a tube in the colon above the obstruction making an artificial anus. After a week in which her condition had improved, the obstruction having been relieved, we again went into her abdomen and resected the sigmoid, removing the growth and as many glands as we could, closed up promptly. The pathologist report was an adenocarcinoma of the colon of slow growth. I have seen her several times since, and she was doing fine since Christmas.

Case No. 3, Case 929. Mr. T. J. Mc., white man, age 61, referred by Dr. Ingram.

His past history indicated that he had suffered with indigestion for several years, but not enough to have a doctor. He had an attack about a year ago of what Dr. Ingram said looked like a mild attack of appendicitis. Since that time he has gained about ten pounds in weight. His present trouble began on November 18, 1925, with indefinite pains all over abdomen. He was not able to sleep that night, and unable to work the next day. That afternoon he took calomel and followed it with oil. Dr. saw him that day and his temperature was 98° and pulse 72. Was nauseated with general abdominal tenderness. His bowels moved several times early the next morning, and about ten o'clock A.M. he had an intense pain which caused a profuse perspiration and a weak pulse. At one o'clock P.M. he complained of severe pain in abdomen, mostly in right side, about level of naval. Abdomen was greatly distended with gas. He was belching and complained of pain in right shoulder. Pulse 104, temperature 98° F. There was more or less general abdominal rigidity. A high right rectus incision was made, and on opening the abdomen, gas and a large amount of very black bile escaped. On account of his being so fat, his duodenum was exposed with difficulty, but it showed a small hole in the second portion of the duodenum thru which gas and bile were pouring out; this hole was sutured over and a drain inserted down into the liver fossa. He had considerable drainage from the wound and a rocky convalescence due to the fact that he also had sugar in his urine and at first his dose of insulin seemed to run him wild. We left it off, but as his wound continued to

slough we resumed small doses of insulin. He eventually cleared up nicely, and is now doing fine.

Case No. 4, H. No. 986. Mr. F. Mc., age 28, referred by Dr. Floyd Rogers.

He had indigestion for past ten years. Whatever he eats usually sours on his stomach in about thirty minutes. He never vomits. Frequently when he gets hungry he has a gnawing pain in upper abdomen. This pain usually comes on about one hour before meals. Eating, taking soda and taking a drink of liquor relieves the pain. This pain often comes at night and before breakfast.

The sequence of his trouble is about one-half to one hour after meals. He has sour stomach and is uncomfortable until about one hour before next meal when his gnawing pain starts.

About one week before present trouble his indigestion became worse. He got some medicine for it, and ate less and on morning of coming to hospital. After breakfast, pain started off gradually in upper part of abdomen just about naval. In about twenty minutes it was unbearable, hurting worse on right side. All of his abdominal muscles were absolutely rigid. He had three hypo's before coming to hospital, but was still suffering and his muscles were rigid.

A high right rectus incision made, bile stained serum poured out. His appendix was very long, hard and bound down to posterior abdominal wall. The gall bladder was distended. At the pyloric end of stomach there was a small perforation of a brawny ulcer, thru which stomach contents were oozing. This hole was sutured over and covered with omentum, a drain inserted in hepatic fossa and the wound closed. The patient made an uneventful recovery and is still on an ulcer diet.

Case No. 5, Hospital No. 1004. Mr. H. W., age 42, referred by Dr. Rogers.

He stated in his history that for last fifteen years he had been suffering from nervous indigestion, lots of gas and a sense of fullness in upper abdomen. He had never had any real pain or had to take purgatives, in fact, he had not taken any medicine. He had not paid much attention to his indigestion until about four months ago, when he began to have a diarrhoea, with some blood and mucous in

stools, lots of gas and could see his intestines coil up in left side where they formed a "knot" during peristaltic contractions. He says he had not lost more than ten pounds in about fifteen years, but I believe this to be a mistake. A barium enema would not go beyond his rectum, and a barium meal did not get out his colon in five days, showing decided obstruction in five days, showing decided obstruction.

A preliminary colostomy was done and ten days later an operation for removal of tumor was attempted, but after getting into abdomen, the growth was found to involve the sigmoid-rectal junction with a coil of ileum in the mass and small growths involved the bladder and post abdominal wall and the glands of the mesentery even up along the aorta. There was nothing to do but to retreat and leave the growth alone, leaving his artificial anus to prevent obstruction.

In addition to the above cases, we have had three inoperable cases of cancer of the stomach since January of this year. Frequently these patients do not consult a physician until too late. Often they will not co-operate with their doctor, and in some cases it is well nigh impossible to make a diagnosis without an exploratory operation. One of these inoperable cancers of the stomach several years ago spent some time in the largest hospital in the state suffering with "indigestion" without the correct diagnosis being made.

Because of the grave danger of these abrupt terminations, and the chronic ill health where the disease is milder and not corrected, it behooves us to discourage this fallacy of "indigestion," and to disabuse the patient's mind when he comes to us complaining of indigestion. Let us at least try to find out what is really the matter with him, so that we may treat him intelligently.

One cannot usually make a diagnosis in these cases by his unaided senses, but a diagnosis can usually be made first, by obtaining a detailed history of the patient's trouble; second, a thorough physical examination of the entire body; third, special examinations (laboratory or otherwise) of any organs that may be under suspicion; fourth, through

X-Ray studies of the gastro-intestinal tract, including fluoroscopic examinations and pictures of the gall-bladder after the manner of Graham and Cole; fifth, probably lastly and of least value, examination of the stomach content.

We all know the value of an early diagnosis in these cases. In ulcer, proper medicinal treatment may render surgery unnecessary. In gall tract disease, Mayo says the mortality is in direct proportion to the delay in operation. And as for cancer, there is nothing more discouraging in medicine than to see these cases too late to be of any help to them.

DISCUSSION ON PAPER OF DR. PATTERSON

Dr. W. H. Myers, Savannah: The doctor has presented a subject which is one of great interest to all of us. I think there is no need of emphasizing the fallacy of a diagnosis of "indigestion." As we all know, and the doctor has well said, it is not a disease but may be defined as a change taking place in the food in the alimentary canal. The causes, as he also said, are extra-gastric and gastric. About 20 per cent of the cases are due to cancer and ulcer.

According to Eusterman, in the ulcer cases we have the typical signs in about 80 per cent, and in the remaining 20 per cent we have to look carefully for the signs. In the cancer cases we have a typical history of ulcer in about 60 to 70 per cent, while in the remaining 30 or 40 per cent the signs are hidden and have to be carefully sought.

One of the most frequent extra-gastric causes of indigestion is pulmonary tuberculosis. Next in frequency the appendix and gall-bladder must be considered. The gall-bladder is a frequent cause of indigestion. We can make the diagnosis now, much better than formerly by use of the skiagraph and the sodium salt of tetra-iodophenolphthalein and the method used by Dr. Graham. This frequently reveals the real cause of the trouble. The appendix is often the cause, and may be easily removed, but not infrequently we jump to the conclusion that it is the cause and remove it, but the patient goes merrily on with indigestion, and perhaps later on someone discovers pulmonary tuberculosis or some other condition which causes the reflex indigestion. The diagnosis of indigestion means nothing, for almost anything can cause digestive disturbance.

What Dr. Patterson sought to impress, and

what I wish to stress is, that we should not be satisfied with a casual examination, but should go into every case carefully. If you have a nervous or psychopathic patient, that patient is entitled to just as careful examination as if there were some surgical condition in the abdomen. I want to recommend that we give these patients as careful an examination as is possible, and in line with the advanced position medicine is occupying today.

Dr. W. R. Dancy, Savannah: The subject has been well covered in many particulars, and I wish to add only one or two points, which have occurred to me as the result of my experience in this particular line, that have not been touched upon.

First of all, we should hold in mind the many extraneous things that give the symptoms of so-called indigestion. I have had several patients come to me with a diagnosis of indigestion, and of ulcer of the stomach, who had nothing more than a sensitive end of the sternum that comes from posture in work, sometimes from slight injury or other causes. This can be easily excluded by placing the hand just below the sternum and pressing the abdomen under the sternum.

Another thing is the small hernia that frequently occurs in the upper abdomen. These are easily overlooked when the patient is lying down in the usual position for examination. Have him stand and the protuberance is evident.

I have had three patients recently with the diagnosis of indigestion. The causes of these conditions were really due to ureteral lesions. One had a small gumma in the ureter, which was relieved by antisyphilitic treatment. The others were due to bands of adhesions which bound the cecum, and reached out, surrounded and constricted the ureter.

Many of these cases of so-called indigestion are the result of chronic constipation. There are two types that should always be kept in mind. One is the very spastic bowel, which produces spastic constipation; the other, the rather relaxed bowel due to ptosis, which retains the bowel contents and produces persistent toxic symptoms.

These are the main points that I think should be considered aside from those referred to, and the real organic lesions which have been mentioned by the preceding discussor.

Dr. L. C. Allen, Houghton: The patients who come in complaining of indigestion always have many symptoms. There are four symptoms that are of paramount importance, and we should never fail to think of them and investigate for them. The first is pain. Has the patient pain anywhere? If so, we must in-

vestigate it carefully. We must determine where it is located, and to what part of the body it is referred. How often does it occur, and has it any relation to the taking of food? We want to find out, if possible, whether the pain is due to peptic ulcer, to the gall-bladder, the appendix, to some lesion of the central nervous system, or to one of many other things that I cannot bring out in a five-minute discussion.

The next important symptom is vomiting. Does the patient vomit? If so, we want to find out what causes the vomiting. Whether it is reflex in origin, due to a neurosis or some organic disease of stomach, or to some systemic affection.

The third symptom of paramount importance is hemorrhage. Does the patient bleed vomit blood, or pass blood from the bowels? If so, we must investigate this carefully.

The fourth symptom of paramount importance is loss of weight. This the patient will often fail to mention unless questioned, but if a patient has lost ten to twenty-five pounds in a few weeks you may be sure he is very ill. One of the chief causes for this is tuberculosis. You always think of that. Another is pellagra. I have had quite a number of cases of pellagra which the patient has had for some time, in which there are no marked symptoms of the disease. I call these cases "silent pellagra," because no frank symptoms may be present for quite a number of years.

Dr. J. C. Patterson, Cuthbert, (closing): I wish to thank the gentlemen for their discussion, especially Dr. Myers, for bringing out my points better than I did myself.

My reason for reading this paper is the fact that too many of us doctors are satisfied with indigestion as a diagnosis and are content to give the patients soda or some other temporizing measures.

We should educate the public to insist on a thorough examination when they have these indigestion symptoms.

FEMALE SEX HORMONE

In two instances of malformation of the sex signs, Robert T. Frank and M. A. Goldberger, New York (*Journal A. M. A.*, Aug. 21, 1926), have definitely established the sex of the patients by demonstrating the presence of the female sex hormone in the circulating blood by injecting lipoid extract of the blood into castrated mice and thereby producing a positive (estrua) vaginal spread.

THE IMPORTANCE OF CHILD WELFARE WORK TO A COMMUNITY*

LINTON GARDINE, M.D.
Athens

At the present time it is entirely unnecessary to discuss the history of the various developments of Child Welfare movements in this country and thruout the world. From the founding of the first asylum for abandoned infants by Datheus, Archbishop of Milan, in 787 A.D. and the real effort for the protection of friendless children by St. Vincent de Paul (1575-1660), to the present time, very great advances have been made. Here, however, we wish to discuss the practical advantages of welfare work as illustrated by a concrete example, and to see how these methods can be applied to other communities. This may be considered a preliminary and entirely unofficial survey of the Athens Child Health Demonstration, with an effort to determine what parts of its activities may be applicable to other places. The demonstration has been in existence only a little over two years, having still three years to run, so we can not yet expect any official recommendations from them.

All Georgians should be proud of the fact that the Commonwealth Fund chose Athens as the location for one of its Demonstrations, and every physician in the South, especially those interested in Child Welfare, should become familiar with the work that is being done there. This splendid organization, directed by the leaders in this country, and calling upon the foremost talent for advice and direction, is carrying on a great work for the child life of America. From their several Demonstrations, scattered thru the various sections of the country, should come valuable information which will mold the trend of child welfare work for the future.

Athens and Clarke county has had a well organized and efficiently functioning health department with a full time health commissioner under the Ellis Health Law since 1920. This is the first essential to health and wel-

fare work, as no community can expect to encourage individual health until it has established community health, and a healthful community. There is no reason why every county in this state should not have this advantage! There are usually other agencies in a community working towards the improvement of health, and the second essential therefore is the co-ordination of these agencies. Athens also had these: an anti-tuberculosis association, closely affiliated with the county health department, and a community council which endeavored to unite all charity and welfare organizations into a smoothly co-ordinated body.

When the Child Health Demonstration Committee decided to locate its southern demonstration in Athens, it recognized at once the advisability of close association with the health department and accepted quarters in the city hall adjoining the office and laboratory of the health department. In this way constant contact was assured; indeed the two organizations tho separate are inseparable.

The health department then existing was composed of two bodies, a City Board of health and a county board, but the two functioned together in such a manner as to avoid reduplication of labor, so we may here consider them as one body. The personnel of these departments consisted of the county health commissioner, a doctor of medicine, trained and experienced in public health; a veterinarian, as meat and food inspector; two sanitary inspectors; a county public health nurse; a part time bacteriologist and a clerk. This year the two boards have been legally united and the personnel remains the same except that the bacteriologist has for two years held a full-time position and the city has for more than a year furnished a nurse.

With this background the Demonstration considered how it might fit into and strengthen the health activities of the city and county, and finally arranged its staff according to the following plan:

First, a local director or executive head of administration, a doctor of medicine with public health experience and giving his full time to the work; a statistician to superintend the keeping of records and the co-ordination of

*Read before the Medical Association of Georgia, Albany, Ga., May 12, 1926.

departments and to furnish the data necessary to evaluate the undertaking; and an office staff of secretaries. Second, a full time pediatrician as director of the medical service. Third, a public health nurse as director of the nursing service, which includes three nurses employed by the Demonstration besides the city and county nurses. Fourth, a director of health education with whom is associated a director of physical education and a dental hygienist, these being in direct affiliation with the department of education of the city schools.

The first step taken by the Demonstration was to give such assistance to the health department as would make possible a full time bacteriologist in a well equipped laboratory. This seemed advisable as a strengthening of the healthful community idea. One of the first problems attacked by this laboratory was the improvement of the quality of milk supplied in the city, and undertaking sure to meet with difficulties but of undoubted importance. The result of this work has been the adoption of the standard milk ordinance of the U. S. P. H. S., and the benefits derived therefrom. Another advantage derived from the laboratory is the improvement in control of communicable diseases.

After a survey of the health and physical condition of a large number of children had been completed by a special group of examiners for record, the pediatrician joined the staff. He has assisted the health commissioner in the examination of school children, which in the previous years had consumed much of this official's time. The first year every child was examined; the following year alternate grades were examined and all children who had showed any defects on earlier examination were re-examined. Having the parents present at these examinations has added materially to their value. Results in having defects corrected have been very satisfactory.

The pediatrician also re-established health centers for the examination of infants and pre-school-age children, which thru lack of time the health commissioner had been compelled to abandon. These centers were in-

creased from three to eleven. The attendance has increased to 560. These "well-baby conferences" at various centers, in the city and the county, some for white and others for colored babies, are for the purpose of instructing mothers in the care and feeding of these babies and how to keep them well. When a sick child is found it is referred to the family physician or to the hospital clinic.

The nursing service is possibly the most important unit of this organization. The nurses assist at the school examinations and the health centers and with immunizations and vaccinations. They follow the child and should prove a connecting link between the home and the health department. Here they can teach the value of immunizations, and the proper methods of isolation and quarantine. These nurses also assist in pre-natal care and with the obstetrical cases and give some bedside care. They have also assisted the health commissioner in the classes for instructing and licensing midwives. Where social service workers are not available, the nurse may gather valuable information on the economic conditions of the family. The Demonstration therefore added to the two nurses of the health department three nurses and a director of nursing, and the nurse of the tuberculosis association is associated with this service.

Dental defects being more prevalent than any others found in the school children, an oral hygienist was added to the staff of the Demonstration. She has examined the mouths of the school children, cleaned their teeth and taught them how to keep them clean. When conditions requiring correction by a dentist were found she has seen that they went to their dentist for treatment, or in the case of indigent families has taken the child to certain dentists who set aside a regular time each week for charity cases. Her work has been the most valuable contribution made by the Demonstration to the community.

To insure any permanent value from examinations and corrections it is necessary that an understanding and appreciation of the meaning of all this health work be instilled into the mind of the people. This is accomplished thru the department of health educa-

tion. The director of health education thru the teachers in the schools is explaining to the children the value of various health habits and procedures. By presenting these matters in an attractive manner, correlated with the routine studies, great interest is aroused and excellent results obtained. The children are taught proper diets, exercise, rest, cleanliness and all good health habits. In young minds these ideas are easily implanted and with a little cultivation may produce a large harvest of benefit.

In a like manner the physical education department is teaching them how to play properly. Exercises become enjoyable games. Friendly group spirit is produced. Good habits in play are quite as necessary as in work. Another very interesting and valuable undertaking by this department is posture classes, for the correction of defects bordering on the actual orthopedic deformities. In these classes the pediatrician assists the physical educator.

As a part of these various duties it naturally follows that these workers come in frequent contact with teachers and parents, and no opportunity is lost for stressing the question of positive health. In the more intelligent class appreciation and understanding is being shown among the adults; certain other classes, and unfortunately the ones that need it most, have not been sufficiently impressed with the importance of these instructions and opportunities. But most encouraging is the fact that practically all the children of all classes have become quite enthusiastic. This means a brighter outlook for future generations. They are now thinking of health in terms of being well, and not of disease.

It is evident that the object of the Child Health Demonstration is the education of the public and the individual, especially the child, in health. As this is not a charity organization but an educational campaign, the work has not been limited to any class but rather has encouraged rich and poor alike to take advantage of the opportunity to become familiar with the methods of health improvement. In this physicians have co-operated, hoping that any temporary encroachment on their private practice might be more than

compensated by the greater desire for an appreciation of their service which will be demanded after the people have learned the value of regular physical examinations and advice. Should such work be undertaken by any other community there would doubtless arise the necessity for control by social service, so that this interference with private practice would not occur. Of course, as with all public health service a certain amount must be tolerated, for the good of the community, and occasionally there is some compensation arising from increased interest in health matters so occasioned. For example, when the health department put on a campaign for immunization against diphtheria and advertised that Schick testing and giving of toxin-antitoxin would be free for all children at regularly appointed hours, many parents, who without this publicity on the subject would not have troubled to have their children treated, took them to their family physicians for immunization.

As will be readily realized, even from this very brief description of the Demonstration staff and its activities, there is a large item of expense, much more in fact than the average community can afford, and made possible in this case because of the central organization which is supporting it. The per capita cost of this program, based on the population of Athens is \$1.48 whereas the city and county, and volunteer agencies only make a per capita appropriation of \$0.86 for health work. Such parts of the Demonstration program as are purely for statistical or record purposes, could naturally be dispensed with in the usual health work, and a very large part of the administration could be undertaken by agencies already existing in the community wishing to try such an undertaking. Certainly some parts of this work must make a strong appeal to places desiring to start child welfare work.

Every county in Georgia can and should have a Health Commissioner, under the EHIS health law. Where possible an effort should be made to enlarge the scope of his work by adding a nursing unit. Health education is possible in every school, with or without the supervision of a director, as finances permit.

Such other units as circumstances permit may be added. However simple or comprehensive the undertaking may be every community owes its children the effort to establish some kind of welfare organization.

DISCUSSION ON PAPER OF DR. Gerdine

Dr. W. A. Mulherin, Augusta: Georgia is blessed in having this demonstration of the American Child Health Organization going on in Athens. Dr. Gerdine has brought out many valuable points and I merely wish to stress a few of them.

The American Child Health Organization is the largest association in the world doing child health work. This organization has, for the first time, placed two demonstrations in the South, one in Athens, for which we should be very thankful, the other in Tennessee in a rural district. Its purpose is to sell health to the community in which they operate and demonstrate that health is purchasable, directly in proportion to the amount of money expended. It is also its purpose to so clearly demonstrate the fact that health is purchasable that the community in which the demonstration takes place will carry on its good work after the five years' demonstration has finished.

Dr. Gerdine deserves commendation for his excellent co-operation, as President of Board of Health of Athens, with this national association. There is a splendid piece of public health work going on in Athens, that should be broadcasted throughout Georgia. I would advise that every physician who can go to Athens, do so, and see what is being done, it will prove both profitable and stimulating to his work.

There is a notable tendency today toward preventive medicine. The leading practitioners of the country, who formerly were so keen about curative medicine, are today coming over strongly to preventive medicine. We are learning the importance of keeping people well and not devoting all of our attention to curing them. Just here it is well to call attention to an important fact, that 75 per cent of preventive medicine lies in the pediatric zone, from birth to fifteen years of age. Keep the babies and children well, and you will build community and national health in the best possible way. This point, I believe, can not be stressed too strongly.

Georgia needs such help; therefore, I think we should give this matter a full discussion and show in every way our appreciation to the American Child Health Organization for coming to Georgia and putting on this demon-

stration. The teaching of health should be encouraged in every community, as Dr. Gerdine says, for the more health we have in Georgia, the better state, in every way, will it be for the prosperity and happiness of its inhabitants.

Dr. J. P. Bowdoin, Adairsville: This is a very important question, and I am inclined to think that Dr. Mulherin did not say quite enough. The particular thing that I rise to stress is the prenatal care of the mother; this, in my opinion, is a most important matter.

I also wish to say that Georgia owes a debt to Athens and Clarke County, because they had to put up eighty-six cents per capita to get this demonstration. The physicians of Georgia would do their communities and themselves a great deal of good by visiting this demonstration and seeing what they are actually doing. It is an object lesson in disease prevention and the prolongation of life that every citizen should know about and especially the family doctor. Go to Athens and see.

Dr. George L. Echols, Milledgeville: I rise for the purpose of stressing the mental disease problem. In our state about one dollar out of every eight or nine goes for the support of the State Sanitarium at Milledgeville. Mental disease is on the increase, and I know of no better time to study mental disease than before it develops. In studies among school children we should always be on the lookout for organic nerve diseases and abnormal trends. In these school clinics you will certainly find pupils who show abnormal mental reactions, and occasionally one that is definitely psychotic.

Dr. Linton Gerdine, Athens, (closing): While I am not personally connected with the demonstration except that I live in Athens and have been called on occasionally for a little help and advice, since Dr. Carey did not get here in time I wish to do what I know he would have done, and that is extend an invitation to every doctor in the State of Georgia, and urge you all to come and see the work that is being done, and get what help and advice you can from it.

ACTION OF HEPATIC EXTRACT IN HYPERTENSION

The evidence presented by Ralph H. Major, Kansas City, Kan. (*Journal A. M. A.*, July 31, 1926), at present is interpreted as showing that while liver extract is effective in certain cases of arterial hypertension, this is only very suggestive but not conclusive.

ECTOPIC GESTATION*

H. M. FULLILOVE, M.D.
Athens

Since it has been my opportunity to have had several cases of tubal pregnancy, since there are few conditions that are more difficult at times to diagnose, and since there is no condition that needs earlier surgical intervention, I fancy it is not amiss to bring this subject to your attention. It is hoped thereby to stimulate your interest and bring out your observations that all of us may bear in mind the condition.

Tubal pregnancy is found more often in multipara than in women who have not had a child, because perhaps, of some infection at previous labor. Gonorrhea or any other inflammatory condition which has affected the tubes by causing adhesions are also predisposing causes. The pathology caused by these infections supposedly interferes with the passage of the impregnated ovum into the uterus.

There are symptoms of tubal pregnancy, but very few cases are diagnosed before rupture, and practically none can be diagnosed without getting the history. Vaginal examination alone is deceptive since the tissues and the tumor are so soft you can hardly tell them from a knuckle of gut. The patient usually gives a history of having missed a period, or is delayed, and has symptoms of pregnancy. At times she will have irregular uterine hemorrhage, sometimes free and again scanty. Occasionally she thinks she has aborted but the flow will continue. Most of the cases miss only one menstruation. Then comes rupture, with the following symptoms: pain on the affected side excruciating in character, followed by all the symptoms of shock. Frequently the pain is so severe that the patient falls on the floor and is unable to get up. Often the shock gives rise to symptoms of angina pectoris. It seems all out of proportion to the amount of the hemorrhage. There is pallor, cyanosis, whiteness of the mucous membranes, yawning, sighing, slow pulse but feeble, and low

blood pressure. The slowness of the pulse is misleading causing, perhaps, at first no thought of hemorrhage. The low blood pressure, however, will give a most valuable clue to the diagnosis. Before the blood clots in the abdomen there is found, as a rule, only an enlarged uterus; after the blood clots a mass may be outlined in the cul-desac. If the rupture occurs more gradually the symptoms are milder. In this instance the patient may recover; or the blood clot may become infected and give a long train of symptoms, such as pain, soreness, nausea, vomiting, diarrhea alternating with constipation, peritoneal irritation, and finally invalidism or death. This may be illustrated by the first case:

Case 1—Multipara, age 30. She was in good health until three weeks before I saw her. One period had been missed and the illness began with a sudden, severe pain in the lower right abdominal quadrant. For several days after, only weakness was noted. Then began fever, chills, sweats, distended, painful abdomen, diarrhea and jaundice. Vaginal examination revealed a large mass in the posterior cul-desac. In this condition there was too much risk in moving her to the hospital, so she was placed across the bed and the cul-desac opened. The drainage consisted of a great many small clots that had not disintegrated and dark stained liquid pus with a colon bacillus odor. This patient promptly died of sepsis.

Case 2 was a negro woman who was seen by me at her home and who had had a diagnosis of double pyosalpingitis. She was well until four weeks ago when an attack came on suddenly after lifting a tub. Faintness, dizziness and a severe pain in lower left quadrant of the abdomen were the first symptoms. There had been no previous soreness in abdomen, no pain on urination, and no vaginal discharge. She had missed one menstrual period had had some nausea and thought she was pregnant. For a few days after the first symptoms the patient was in bed, and then got up. Quickly, however, fever, abdominal tenderness and distension followed. In this case pyosalpingitis was naturally thought of, but the diagnosis of ectopic gestation was confirmed by operation. The abdomen showed disintegrating blood clots, pus, and dense adhesions everywhere. The right tube was normal but the left was ruptured. This woman was removed to the hospital in an ambulance and apparently stood the operation well. At

*Read before the Eighth District Medical Society, Athens, Ga., August 12, 1925.

her request previous to operation, she was returned home a few hours after fully reacting from the anaesthetic. No complications were anticipated, but in one hour after getting home she had a sudden attack of dyspnoea and died in a few minutes. Death was probably due to pulmonary embolism.

These two cases illustrate that even the so-called mild cases may terminate with as bad results as the stormy ones, unless diagnosed and operated upon early.

Case 3—Age 30, who had had one child ten years previously. She was of a neurotic type but well nourished. She was in her usual good health until two weeks after her menstrual period failed to appear, when she began to have irregular uterine hemorrhage. The hemorrhage continued for three weeks uninfluenced by medicines commonly employed. Vaginal examination revealed nothing unless perhaps, a suggestion of an enlarged uterus. Operation was advised and accepted. Curettage revealed nothing pathological, and the abdomen was opened. I found that I had ruptured the tube which was bleeding freely. This case indicates that before every curettage for abortion it is wise to make a careful bimanual examination, and try to rule out ectopic pregnancy.

Case 4—Age 35, tripara, was emaciated but in her usual health. On doing her kitchen work early one morning she had a sudden excruciating pain in the lower abdomen and fell on the floor, where she lay for several hours before being found by a neighbor. When I saw her she was unconscious most of the time from shock and hemorrhage. After being put to bed and given morphine and stimulants, she was able to tell enough for me to decide that it was a case of ruptured tubal pregnancy. She had not menstruated for seven weeks. The mucous membranes were pale, the nails and lips were purple, the lower abdomen was dull on percussion and painful, but there was no vaginal discharge. This patient was given an intravenous saline before operation and 1,000 c.c. of normal saline were left in the abdomen after operation. In three months she was well again.

Case 5—Age 28, unipara, had pains simulating appendicitis, which had been diagnosed. Six days after the regular menstruation was missed there began irregular colicky pains in the lower right abdominal quadrant, which put her to bed. The following day she was up and without discomfort, but on the next day at 3 P.M. there was nausea and vomiting and pain which now radiated into the vagina. She could not stand or sit. Internal hemor-

rhage later caused the pulse to be weak and slow, together with purple nails and lips, the face was a greenish hue. There was no air hunger, yawning, no yellowish hue around umbilicus, and no vaginal bleeding. The blood pressure went to 60 systolic. On operation the abdomen was full of free blood and many clots. The right tube was found ruptured about midway with the membranes protruding and the fimbriated extremity open and bleeding. The tube was removed together with the blood, and the abdomen closed. A transfusion of 500 c.c. of citrated blood followed. There was a gradual and uneventful recovery.

Case 6—Age 25, secundipara, farmer's wife and used to hard work, had an unobtainable early history. When first seen by me she had been in almost constant labor for five weeks and the physician who called me was the fourth one on the case. According to the count she should have been delivered five weeks previously. Examination showed a temperature of 102, pulse 125 and weak. The abdomen was tender and had the appearance of a full term pregnancy. Vaginal examination revealed no hemorrhage, a normal cervix, and a uterus of normal size. To be sure of the uterus, a uterine probe showed normal depth. Back of and to the sides of the uterus was a large mass, smooth, and a contour like a pregnant uterus. It was movable by pushing on the abdomen. Having decided this must be a full term abdominal pregnancy, and having given stimulants, I advised that she be removed to the hospital the next morning. Not thinking she would be able to come or even that she could live, to my surprise, next morning she was brought in. The operation revealed a fully matured child, apparently dead for some time. The baby was in a sac as thick as uterine tissue, but, of course, it contained no muscle tissue. A normal sized placenta was in the sac. There were a great many adhesions and a great many large thrombosed blood vessels. Most of the sac, all that I could get, was removed. The abdomen was drained. She was able to leave the hospital in three weeks. Three years later her health was good. Should I again make a diagnosis of a case of this kind with a living baby, I believe, that it would be best to wait until the death of the child with resultant thrombosis of the vessels before operation. With all the vessels to the placenta bleeding at one time the patient would most probably die before the hemorrhage could be checked.

I have had several other cases similar in type to Case 5. The ovarian type I have not had.

TUBAL PREGNANCY*

CAUSES OF ERRORS IN DIAGNOSIS WITH ESPECIAL REFERENCE TO THE NEWER SYMPTOMS

J. H. NICHOLSON, M.D.

Atlanta

In spite of the fact that ectopic gestation has been recognized since the tenth century when it was described by Abulcasis, and the great amount of literature yearly on the subject, it passes unrecognized daily. This in a great measure no doubt is due to the teaching of the past that it was an uncommon occurrence, and therefore is not thought of.

In a careful review of the current literature on extra-uterine pregnancy, the statistics on its relative frequency are most interesting, ranging from one in every 14 to 21 pregnancies in given series of cases. In a series of 163 operations on the lower abdomen, in women, including Caesarean sections, in the Chester Hospital, there were 10 ectopic pregnancies. From this we can see that it is not an uncommon occurrence. Of ten cases only four were sent in with the correct diagnosis. The errors in diagnosis were due in most instances to two very definite causes, the first of which was a rather vague history and the second was the persistence, on the part of the physician, in trying to elicit certain so-called pathognomonic signs which were absent.

It is generally believed that ectopic pregnancies are more prevalent in the cities than the country, due to a greater amount of pelvic infections in the cities. There are other factors, however, such as congenital malformations, injuries from labor and extra mural inflammation of the tubes, etc., that must be thought of as causative agents.

During the past decade there have been brought out certain signs and symptoms that are referred to by various authors, as pathognomonic signs; unfortunately the diagnosis is too frequently made from a haphazard history and the presence or absence of one or two of these signs. No disease can be diagnosed on one symptom, and the symptoms

brought out in the recent past by their originators as being significant of ectopic pregnancy, were not intended to serve as a short cut to a true diagnosis but as a link in the chain of events occurring in these cases, found only by a careful history taking and a most thorough and careful physical examination. Errors in diagnosis of this condition can be partially eliminated by a careful summing up of the history and physical examination. They must go hand in hand. We are prone to consider too lightly some of the subjective symptoms manifest in many of the women patients we have to deal with, attributing their complaints to neurasthenia. This is a great cause of a few of the grave errors we commit. No doubt some cases can be diagnosed on the subjective symptoms alone, but the diagnosis should in every instance be confirmed by a complete physical and vaginal examination. A common error is to confuse the intermittent central lower abdominal pain of early abortion with the unilateral pain, usually slight in character with a bloody discharge such as we commonly observe in an overstretched tube or even the more severe one-sided pain of a ruptured tube. The only resemblance is that both cause bleeding and pain. Abortion with clots and membranes, and the ectopic gestation without. Just before or after rupture or bleeding from the fimbria, a definite, one-sided, constant pain is present, with abdominal rigidity and sensitiveness to pressure; while the pain of an abortion is over the fundus uteri and is more or less intermittent. Abdominal rigidity is usually absent except during uterine contraction.

In every woman of the reproductive age who gives a suspicious and evasive history regarding her menstruation especially, where abdominal pain with faintness, abdominal rigidity, tenderness to pressure in either fornix, are predominant symptoms, an ectopic pregnancy should be considered until proved otherwise by observation and careful study.

SYMPTOMATOLOGY

The symptoms presented by these cases according to DeLee (1) are as follows: In the first few weeks of a tubal pregnancy the only

*Abstract of paper read before the Eighth District Medical Society, Athens, Ga., August 12, 1923.

symptoms noticed by the patient are the usual ones of a normal pregnancy, such as breast changes, slight morning nausea, etc., but after a few weeks she complains of pain in the pelvis, usually on the affected side, cramp-like in character, due to uterine and tubal contractions, and a bloody vaginal discharge. On the occasion of a jar, strain, coitus or examination a sudden severe pain is felt on one side, the patient feels dizzy and faint and may vomit or become nauseated. Symptoms of shock may appear, this being due to the sudden distention of the tube, to irritation of the peritoneum by blood, or by the loss of blood. These symptoms may indicate that a hemorrhage has occurred in the tube, or through it into the belly, or a rupture of the tube has taken place.

Rubin (2) reports that in his series of cases dating from October, 1921, until publication of his article, four cases had presented severe darting pains in the shoulders, and if the hemorrhage had not been too severe and was confined to one side the pain would tend to go to the shoulder of the affected side.

Polak (3) points out as the cardinal symptoms of ectopic pregnancy delayed, skipped or anomalous menstruation followed by colicky pains referred to the lower abdomen—usually to one side—mistaken for indigestion or colic. Polak further asserts that on pelvic examination the cervix may be soft—**IS ALWAYS SENSITIVE TO MOTION**—and the uterus may be displaced to one side, or forward or backward by a sensitive mass in one or the other fornix. The temperature as a rule is a little above normal; the leucocytes will show a moderate increase and the red cells and hemoglobin may be slightly or markedly decreased. The history, the characteristic bloody discharge and the sensitive cervix are the most constant signs. Polak found the sensitive cervix in 97% of his cases.

King (4) states that there are practically no symptoms noticed in a tubal pregnancy, such as pain and uterine hemorrhage, until a rupture or tubal abortion has taken place, then there appears a sudden attack of pain in the pelvis, usually unilateral; this is followed by the symptoms of shock and collapse, such as fainting, air-hunger, thirst, pallor and

all the other symptoms indicative of hemorrhage.

Cullen's (5) sign, a blue discoloration of the umbilicus, has not been found to be constant and is worthless in dealing with the negro race.

Three cardinal symptoms as given by Scott (6) in the cases coming under his observation, that are almost never absent, are missed menstruation, onset of lancinating pain, swoon, shock and symptoms of internal bleeding.

Philpot (8) states that the principal symptoms observed are the irregular attacks of pain and enlargement of the affected side without a corresponding elevation of temperature, while Novak (9) believes that the most important diagnostic symptoms are the menstrual history, pelvic pain, and the presence of a unilateral tender mass in the pelvis; there must be some menstrual irregularity but not necessarily a missed period.

Amenorrhea is undoubtedly a most significant symptom but due to the wide variation in the percentage of its occurrence it can not be accepted as a true diagnostic sign or discarded as useless.

Wynne (10) in a series of 303 cases showed that only 34% had an amenorrhea while MacKenzie (11) states that it was present in 75% in a relatively large series of cases.

In one of our cases a rather bluish discoloration of the skin of the entire lower abdomen was noticed, this is merely mentioned as an observation of interest, not knowing whether it has any definite significance or not. This patient was unusually thin and had been absorbing the leaking blood for some weeks.

It has been observed in our cases, after the most careful study and diligent search for symptoms, that there are no pathognomonic symptoms of ectopic pregnancy. The tender cervix has been found in only one case and can not be regarded as pathognomonic, but when present is a most valuable sign. However the fact must not be overlooked that it is also found in cases of salpingitis and pelvic cellulitis following septic abortions. The symptoms as outlined in the text books and literature, making a classical picture, have

not manifested themselves in this series of cases. The only case in which we have been able to find a typical picture of tubal pregnancy was that of a woman who had missed one period, and while washing clothes she lifted a heavy tub of water, a violent, stabbing pain seized her in the left lower quadrant of her abdomen; this pain was so severe that she fainted and had to be carried to the bed; immediately thereafter she noticed a small spotting of her clothing. She remained in bed for several days and on getting up and walking around the house, she had another seizure of pain in the left tubal region, this causing her to come to the hospital. On examination she had an exquisitely tender cervix, which was not dilated but soft; by bimanual examination through a thin abdominal wall, a distinct, tender mass could be palpated in the left fornix. The uterus was slightly enlarged but not tender over the fundus. From the physical examination and the typical history a diagnosis of tubal pregnancy was made and she was operated on. The findings were: an ovarion cyst about the size of a lemon twisted on its pedicle and a pregnant uterus.

DIAGNOSIS

In order that we may always correctly diagnose tubal pregnancy before the patient is exsanguinated, I believe the most important initial step is to, "Think of it." This is one condition that has taxed the brain and worried practitioners since its first recognition and we can think of no other disease where the diagnosis depends on the correlation of symptoms as much as in tubal pregnancy. The physician who keeps in mind one or two signs thinking they are pathognomonic of tubal gestation is courting disaster and the only possible thing that will save the patient, is a tubal abortion with a slow leak of blood from the fimbriated end of the tube.

We agree with King (5) that the history is a very valuable adjunct in making a diagnosis, however there are cases where the history is so vague and contradictory that it will be of very little value. On the other hand we have found that it is NEVER wise to discount what these patients tell us and under no circumstances should we ask them leading

questions, because, if their pain has subsided and they are fairly comfortable after a siege of agonizing pain, their answers will not be what you want or you will assume them to be untrue, especially is this true in unmarried women. We have two kinds of patients to deal with, those that will readily consent to operation and others that will not unless they are suffering excruciating pain. Therefore if perchance we are dealing with the last mentioned in the interval between seizures we can safely assume that her history will be misleading to discourage operation.

We believe with Polak (4) that when present a tender cervix is a most valuable sign, but the pain elicited by the tender cervix must be interpreted correctly to be of value, because in practically all cases of pelvic disease we will get a more or less tender cervix and we must keep in mind that this is also true in some cases of cervicitis with beginning erosion, which might not be detected by palpation. This tenderness found in tubal pregnancies is distinctly different from that found in other pathological conditions of the pelvis, in that it will cause intense pain on being pushed towards the uterus or laterally. The pain will be so excruciating that it will cause the patient to yell, faint or nearly jump from the bed. On careful questioning these patients will tell you that the pain is confined to the part touched and not to the adnexa of the uterus, whereas in salpingitis or other inflammations of the pelvis, the pain is complained of either in both sides or in the side opposite to the way you moved the cervix. Unless there is marked erosion with cervicitis of an acute nature, palpation of the cervix, per se, as a rule never causes any great amount of pain. There is an expression of fear and anxiety on the faces of these patients after once you have palpated the cervix and the second examination will be made with difficulty; if succeeding, a glance at the patient reveals a picture never forgotten, their entire body will be absolutely rigid, pupils widely dilated, breathing very shallow and fingers clenching tightly whatever they may be grasping. No other condition of the pelvis will cause this pain on palpation of the

cervix, sufficient to disturb the autonomic system.

It is unfortunate that this symptom is not present in all tubal pregnancies and we do not believe that it is ever found before the tube ruptures or abortions, allowing the blood to irritate the peritoneum in the pelvis and also causing pressure on the sensory nerves; however its significance is paramount and should always be looked for.

A mass can not always be palpated in the tubal regions or in the cul-de-sac and if one is detected the question arises as to whether it is a tubal pregnancy or pelvic abscess. The temperature and blood picture will be of very little help because both will sometimes run the same temperature and the white count will be increased, therefore the logical thing to do, provided the remaining part of your clinical picture is obscure, is to make a stab wound through the cul-de-sac and see if you obtain blood or pus, in either case no harm will have been done but if neither is recovered, the opening should be enlarged enough to admit an examining finger and each tubal region should be explored; this secures drainage par excellence to the pelvis in the event an abdominal section is performed.

In cases with a slow blood leak through the fimbria of a few weeks duration, we are certain to get a yellow discoloration of skin and conjunctiva due to absorption of blood pigment, with possibly many upper abdominal symptoms such as nausea and vomiting, loss of appetite, eructation of gas, slight distention, soreness and pain in the epigastrium. These are the cases that cause no little worry and the final diagnosis will be difficult of solution unless we correlate our entire chain of symptoms from the beginning of illness, re-read the history and THINK of ectopic pregnancy.

If we can establish the fact of pregnancy, it will aid us in diagnosis and in some cases a woman's intuition helps to clear up this problem but there are a large number of women who never experience the morning nausea of pregnancy nor is there any appreciable breast change during the first six to eight weeks; therefore these signs will have to be included in the chain of symptoms that

might be present and serve only as one link in the ultimate solution.

Grizzard (7) lays great stress on establishing the fact of pregnancy of some type in making a diagnosis of these cases, along with a relative sterility of the one child type and agrees with King that the history is by all odds the most important single feature. In taking histories of these patients the author has found that it is never wise to try to obtain any information during an attack of pain of the severe and lancinating type; never worry the patient with a long string of questions; ask five or six and then leave, come back later and try again. By this method you gain the confidence of the patient. Have a definite set of questions to ask and do not dwell on things that do not have any bearing on the case. There are women who will not answer questions in the presence of other patients in a ward, therefore they will have to be treated accordingly by making it a private affair in the examining room.

The following questions in taking the history have been found to be the most important ones:

When was your last period?

Did you notice anything unusual about it?

When was your last child born?

Have you had any miscarriages?

If you had pain was it before or after you began bleeding?

Do you have any reason to believe you are pregnant?

Have you had an attack like this at any previous time?

What were you operated on for?

Have you been using vaginal cones or other medicines, if so, why?

Has your pain been of a different character than others you have had? Has it been constant or irregular?

As can be seen these questions can be answered by the most illiterate patient and they cover everything of importance. John B. Deaver asserts that an accurate history is at least 50% of the diagnosis; in no case is it ever truer than in ectopic pregnancy.

To recapitulate, the diagnosis rests on the ability of the physician to obtain a history

that bears directly on the true condition and an accurate interpretation of this history, plus the correlation of the symptoms and physical findings: not on one or two signs which are considered pathognomonic.

*From the Surgical Service, H. M. Armitage, M.D., F.A.C.S., Chester Hospital, Chester, Pa.

CONFERENCE OF SECRETARIES OF THE DISTRICT AND COUNTY SOCIETIES 1926

The meeting of Secretaries of the District and County Societies was called to order at 5:40 P.M., Thursday, May 13, 1926, by the President of the Medical Association of Georgia, Dr. Frank K. Boland, Atlanta.

Dr. R. L. Miller, Burke County: We have in Burke County twenty men, seventeen of them members of the Society. One is ineligible and the other two are old, chronic morphin habitues, and do very little practice. We have regular meetings once each month. We serve dinner and have the meeting afterward. At the last two or three meetings we have had the Jenkins County Society meet with us as our guest. At the last regular meeting we had the Jenkins and Richmond County Societies both with us. We do this to create more interest in all the societies, and to further good fellowship, and have found it a good plan for we all enjoy the meetings.

Dr. J. N. Dorminy, Crisp County: We have seventeen members, and are 100 per cent county. We meet once a month, on the first Monday evening.

Dr. D. C. Kelley, Gwinnett County: Out of eighteen practitioners in Gwinnett County we have ten paid members in the Society. Out of those who are eligible we only lack about three. I believe that we have not been able to get their check for their dues so far this year. Our regular meetings are held on the first Tuesday in every month. We do not always get together in sufficient number for quorum, but the last meeting was one of the most enthusiastic and I think the best we have ever had since we had a County Society.

Dr. Cleveland Thompson, Jenkins County: In Jenkins County we have four men in active practice, and they are all members of the County Society. We have one man who has retired, who is an honorary member. We have one negro doctor in the county, and one chiropractor. We do not have regular meetings. We have a meeting several times a year, and we go regularly to the Burke County and to the Richmond County medical society meet-

ings. We also meet frequently with the Screven County Society, and once a year we meet with the Burke and Emanuel County Societies combined. We entertained the District Society this year.

Dr. H. D. Allen, Jr., Baldwin County: We have twenty-two members this year, which is two less than last year. One of our faithful members has become disabled and is not doing any practice. We are anticipating electing him an honorary member. We have just recently seen him, and he has expressed a desire to withdraw. We have not yet had a meeting, but I feel sure we will elect him an honorary member because he has been president, and has served faithfully with the society for about twenty years. One member is refractory about paying his dues, but I hope will come around before fall. The rest of the doctors who are not members consist of four country practitioners who devote more time to farming than to the practice of medicine. They always say they do not do enough practice to keep up an interest in medicine. All the men at the Sanitarium belong to our society, and the county is practically 100 per cent of the doctors in active practice. We have one floating member, who is a member of the Washington, D. C., society and is here in public health work.

Dr. Charles A. Greer, Third District Society: I represent the Third District, and think I am the only member of the county society here. Out of nine doctors in our county seven belong to the society. We have two counties and out of four doctors in ? County, three belong to the society. Our District I think is one of the best in the state. I say this because I think we have two hundred doctors in the District and we have a membership of one hundred seventy-five names on the roll. Our attendance is increasing. We average from twenty to sixty or sixty-five. We had a little inspiration about our District organization about five years ago when we decided to invite the doctors and their wives, and put on a banquet. I think as a rule we have about one hundred and sometimes two hundred. Now we cannot help having the meetings, because the wives begin to prepare for it, notify us and we have to get ready. It is gratifying to the secretary to know this, for we can notify the local society that is to entertain us as to how many to count on. About a year from now we hope to celebrate our twentieth anniversary. During this time we have only missed one meeting, and that was due to the flu epidemic and the war in 1919. Since then I think the society has grown in interest, and I believe our District will soon be 100 per cent.

Dr. W. J. Hutchins, Vice-Councillor Ninth District: I was under the impression that our report had been sent to the Secretary, and for that reason I fear I am not capable of making a report. Our Secretary is not here but my understanding is that he is to send the report to Dr. Bunce.

Dr. G. Y. Moore, Randolph County: Last Thursday we had a meeting and several of our members told me to write out my report, so with your permission I will read it.

(Presented written report which he did not turn in.)

Dr. S. A. Boland, McDuffie County: In McDuffie County there are five eligible doctors, and of these three are members of our medical society. We meet occasionally, not regularly, but we attend the Richmond County Medical Society meetings most of the time.

Dr. J. V. Rogers, Grady County: We have twelve practicing physicians, of whom eight are members of the society. We have no regular meetings, and have no scientific papers whatsoever. We attend the ? County Medical Society meetings occasionally. I feel as though we could have meetings and believe we need some outside help to get them started. I think if we had one or two men from the outside to get things going, we could have an active society.

Dr. J. B. Fitts, Fifth District Society: Our Society was reorganized about a year ago. The District is composed of 360 members, Fulton County with 340 and twenty more from the small counties. We have two meetings annually. It is planned to have one of them an all-day or a half-day meeting in one of the smaller places, and the other is held in Atlanta. A problem I would like to bring up for advice is the question as to the best means of co-ordinating the situation in a society composed of one very large group and four smaller ones. I have been unable to decide as to the best co-ordinating function. This is our present plan, to have one meeting in the small county and a second in the large county.

Dr. Cleveland Thomas: I cannot give any advice, but I can tell what we do in the First District, where there is a similar situation. Chatham County has by far the largest number of physicians of all the others put together. We do as you are doing now. We have the midsummer meeting always in Savannah because they have access to Tybee(?) and that is always a drawing card. We have the midwinter meeting always in one of the rural counties.

President Boland: I think that solves the problem best. Of course, when we go out into the small counties we do not expect them to

entertain us. Then it is always a Dutch treat, and it works well.

Dr. J. G. Dillard, Muscogee County: In Muscogee County we have ten doctors, five of whom are members and five of whom are not in the society.

Dr. A. A. Morrison, Chatham County: Chatham County has sixty members, all paid up, and last year they were all paid up but one. We lost three members by death and two moved away. We had two very interesting papers last year, one by Dr. William J. MacCarty from the Mayo Clinic, and one by another doctor from New York. In July we entertained the District Association. The first day we have scientific papers and the second day an all-day fishing trip. We will be very glad to have any one who cares to do so come down and be with us.

Dr. Logan Thomas, Terrell County: In Terrell County we have twelve eligible members, and they are all paid-up members, all healthy, energetic men, engaged in the practice of medicine. We have meetings monthly during the spring, summer and early fall, and occasionally during the winter. We have a banquet sometime during July or August, with a gathering down by the creek, and we have our wives and daughters with us. We are discussing getting the Ellis Health Law in our county.

Dr. L. S. Osborne, Ben Hill County: In Ben Hill County we have nine members this year. Last year we were 100 per cent, but this year one is ineligible, one will not come in, and three of our last year's members have moved to Florida. We meet once a month, and in order to stimulate the members to come out we have supper at the hotel every meeting. We meet on the first Tuesday of each month, having our business meeting after we finish the supper. Last year we tried to get along without the supper, because some of the members thought it was not necessary, the consequence was that we only had two meetings in the whole year. This year we started out again on the old proposition, and we have had everybody out every time. Speaking about the Ellis Health Law, we have been trying for some time to get it in Ben Hill County. We have had two grand juries, but not successful grand juries. Whenever we can we will get it through. I know we need it, and think every county does.

Dr. V. O. Harvard, Councillor, Third District: We have three of our men here who are county secretaries. The Third District has fifteen counties. Four of them are too small to have their own societies and they meet with others. Four county societies have two counties in each. We have four 100 per cent coun-

ties in the District, and another is so close that they feel badly because they are not. I think Dr. Greer is one of the best secretaries in the state, and the other secretaries I hope will be kept in office because they are all willing to work. The county secretary is really the life of the society. When a society can get a good one who will notify the men when they should meet, and see that they come to the meetings, that man should be kept in office. Dr. Greer spoke about having the banquet. We have a half day meeting usually, getting to the meeting about 2:30 in the afternoon, then we have four or five papers, followed by the banquet. As he told you, the county is made up of small towns and the doctors' wives do not get a chance to go to picture shows and other things, as they do in the larger towns, and we are very glad to have them with us. We think we are doing well in the Third District and want to keep on going.

Dr. R. L. Miller: I think I would be derelict and do a grave injustice to Richmond County if there is no one else to tell about their society. They meet monthly, at night, and always put on a supper. They never have a meeting without inviting the Jenkins, Burke, Colquitt, McDuffie, Warren, and all the surrounding county societies to meet with them. In some of these counties we have many there who are young doctors and most of the men have their membership in the Richmond County Society. They are doing a wonderful work. They have organized medicine and are doing splendid work for it.

Dr. A. A. Morrison: Down in Chatham County we have a meeting twice a month and the usual attendance is around twenty-five. I think this is very small with a membership of eighty-six. We have papers for every meeting, and if any one could suggest some way of getting out a larger attendance, I would appreciate it greatly. We usually have a paper and then report cases.

Dr. V. O. Harvard: I would suggest trying to feed them. The easiest way to get doctors out is to promise them food.

President Boland: I think I might report for the Fulton County Society, as Chairman of the Board of Trustees. We have a rule now by which we have the business conducted by the Board of Trustees, which consists of the five last ex-presidents. After a man is president he serves on the Board of Trustees for five years, a new man coming on each year and an old one going off. This takes the business of the society away from the scientific meetings and gives us the full two hours for reading papers. There is very little busi-

ness, except that everything has to be approved by the society as a whole, as in our State Association. Our society is becoming more and more a clinical society. We find that the exhibition of patients seems to be more attractive to the men than the mere reading of papers, and our program is getting filled up that way. We meet on the first and third Thursdays of each month. In addition to the general meeting there are several subsidiary societies, the pediatric, the eye, ear, nose and throat, the pathologic, the neurologic, and possibly a skin section. The society consists of 360 members, as Dr. Fitts said. There are about 600 doctors in the county. Our average attendance at the meetings is close to 125. I was president five years ago and remember that our attendance then was eighty-five. I think we have a splendid society. We own our building, and it is about two-thirds paid for. It cost \$25,000.00 and we have been offered \$40,000.00 for it. It is a very valuable piece of real estate, too valuable to keep for this purpose. We may be able to sell it in a few years and build a regular club house. At present we have a large residence, and while it is very convenient it is not as convenient as a complete building for our purpose would be. We have a splendid library, keep a full-time Executive Secretary, and are going along smoothly. We shall be glad to have any of you come to our meetings at any time. The idea that Dr. Miller brought out about the Richmond County Society sending notices to the whole Tenth District it seems to me is a good thing to do. It would be well for each society to send notices to the surrounding counties and invite them in each time, for it would be sure to stimulate interest.

Dr. P. O. Chaudron, Polk County: I make my report with a great deal of embarrassment because we have seventeen doctors in our county, and only ten who are paid up. We have one negro doctor, and of the other six men five are eligible and the other is not. My greatest difficulty is to get the men to the meetings. I have tried all the hooks and crooks. I have been secretary of several different societies before, but this year I have found to be almost inexcusable. I have tried feeding them, I have tried having clinical material brought in, and have brought some myself. I have tried reading the case reports from the Massachusetts General Hospital, and have tried to have a class where we could learn something. My idea of a county medical society, in addition to the social aspect, is that we should endeavor to learn something. If we do not progress we might as well quit. I send a typewritten let-

ter to each member each month, and try to have somebody read a paper. I used to send out a printed program when I was in Alabama, but since I have been in Georgia this has not been possible. One year when I was secretary they had never before had over two meetings in a year. I had eleven good meetings that year, and tried to have supper served at our best hotel, on the idea of Napoleon that men "fight better on a full stomach." I think they argue better, but none of these plans have worked this year. I have only had one meeting. I would like to report the serious illness of our President, Dr. Richardson, and the death of my partner, Dr. H. M. Hall, a former member of the society. My main object in coming here is to get some ideas about improving my society. I have felt very much discouraged over the present outlook. After 1923 I refused to be secretary any more, because I could see the lack of interest. In 1924 we had one meeting. In 1925 we had two meetings, with an election of officers. I very reluctantly took the office of secretary again, hoping that I might revive some interest in the society. It is with regret that I am telling you this, but the members will not attend the meetings. If you can give me some suggestions that will boost me up as secretary I shall be delighted. If I cannot improve conditions I will quit.

President Boland: Have you invited any out of town men?

Dr. P. O. Chaudron: Yes, we have had several and have had very nice talks from them. We have not yet been able to get the Ellis Health Law through.

Dr. R. L. Miller: I wish to suggest that you can write letters until you get grey-headed, and they will not pay any attention to them. I think the only way you can accomplish anything is to see them in person, and have a heart-to-heart talk. After we elected officers in January we had only three present out of a membership of sixteen. I got out and saw each man, and had a heart-to-heart talk with him, and putting it up to him that he was doing himself an injustice, that he was doing organized medicine an injustice, and his society a grave injustice. I told him that if he did not have organized medicine enough at heart to give two or three hours a month to it he was a poor doctor. We have an average attendance now of ten or eleven, and if you get right behind them they will stick to it.

Dr. J. N. Dorminy: That was one of our troubles. Before we began to feed them we did not have a good attendance, but now we have a good attendance all the time. I guess

our doctors get hungry, and Dr. Chaudron's do not.

Dr. Charles A. Greer: The doctor's trouble is much like one we had. If you get the ladies' city clubs waked up on some vital question concerning health, get them to work up a meeting and invite the doctors to it, and get somebody to give a special lecture pertaining to health conditions, I believe it will help. If the first one does not bring them out, try again. Get the doctors' wives to assist them in it. We tried that a time or two and got them started. Now we only have to announce a meeting, and the doctors come and do not bring their wives. We meet once in one county and the next time in another. It is hard to provide any refreshment of any sort, but we get through with the scientific and business part of it. I find often where the doctors are careless about attending these meetings if the public gets interested they inquire why the doctors do not attend, and that wakes them up. I know in our section we have doctors attending now who never did attend before, and I think this is a valuable way—to have a general meeting on some interesting public health question.

Dr. D. C. Kelley: I do not know whether we would ever get a quorum if I did not sit down by the telephone about time for our members to come in and call them all up by 'phone. I tell them they are needed, and we soon have a quorum for I find they will come in a few minutes if they are called up and reminded.

President Boland: I think our Ladies' Auxiliaries are getting to be a great thing. I know at the meeting of the American Medical Association in several instances the doctors' wives went although the doctor himself was unable to attend the meeting. This shows to what extent the Ladies' Auxiliary is reaching.

Dr. H. D. Allen, Jr.: There is one problem we have been having in the district with which I am connected. Our district stretches over half the State, one county after another. There are only three towns in the district that entertain the society. Augusta entertains every other time, and Milledgeville takes it once and Sandersville takes it once. Richmond County certainly has been doing a great thing in inviting the other counties in. I do not know what influence it has on Burke, but in Jenkins and Glassecock we do not get the men in the State Association. We have more unorganized counties than any other district. If the larger ones have increased dues it works a hardship on some of the country doctors to pay the dues to the large counties. I

believe it would be a good plan if we had fixed dues for all the counties, and in the places where they have larger societies they could have elective bodies which could support the medical society, or the academy, or the medical club, or whatever they wanted to call it in the larger places, without depriving the State Association of some 300 or 400 members. I believe we would get four or five members if the Secretary of the State Association should write these men and ask them to become a member, and then assigned them to one of the counties in their neighborhood. Then they would not need to feel that they had to pay any additional county dues. We would be glad to waive the small dues in our county to get them into the State Association, even though they never met with our society. We have meetings every month, on the second Wednesday. We do not have any trouble in getting a quorum for we meet at the State Sanitarium. While I have written to fifteen or twenty doctors I have never had a response, and yet I know several of the men have paid up directly to the Secretary. I think this is a problem we should consider, and as far as benefiting the State Association is concerned, I think we could get something like 300 members. I have attended five of these meetings, and am beginning to feel that I am one of the senior secretaries, although I guess some of the older men have been secretaries longer than I have. I would like to have something done about getting the other members.

Dr. R. L. Miller: Dr. Allen did Richmond County a little injustice in his statement, without knowing it. By inviting all those men to attend their meetings they have brought into the State Association a great number of men.

Dr. V. O. Harvard: I am sure that the county society dues are not paid to the Secretary of the State Association for he would not accept them. Another thing is that some of the county secretaries collect the money from their members, but neglect to send it in promptly. A number of men were suspended because the dues were not paid by April 1st. Please, when you collect dues forward them to the State Secretary without delay.

Adjournment at 6:30 P.M.

Next meeting Southern Medical Association, Atlanta, November 15-18. Make your arrangements now to be present. Annual dues, \$4.00. C. P. Loran, Secretary-Manager, Empire Bldg., Birmingham, Ala.

SECOND AND THIRD MEETINGS

OF THE
HOUSE OF DELEGATES
1926

SECOND MEETING

WEDNESDAY, MAY 12, 1926

The second meeting of the House of Delegates was called to order at 8:05 A.M., by the President, Dr. Frank Boland, Atlanta.

ROLL CALL

The Secretary stated that he held in his hand the signed roll call of fifty-three Delegates and Councilors, and moved that this constitute the roll call for this meeting.

Motion seconded and carried.

The President declared a quorum present, and the House duly constituted for the transaction of business.

Those present were:

W. R. Dancy, Savannah (1st Vice-Pres.)
J. C. Wall, Eastman, Ocmulgee County Society.
O. W. Roberts, Councilor 4th District.
J. O. Elrod, Forsyth (Ex-President).
V. O. Harvard, Councilor 3rd District.
B. T. Wise, Sumter County.
Ralph Freeman, Jackson County.
G. L. Echols, Baldwin County.
J. W. Palmer, Ailey (Ex-President.)
Wm. L. Davis, Dougherty County.
H. M. Fullilove, Athens (2nd Vice-Pres.)
Charles Usher, Chatham County.
Theo. Toepel, Fulton County.
C. E. Waits, Fulton County.
J. K. Quattlebaum, Chatham County.
E. C. Thrash, Councilor 5th District.
M. W. Spearman, Walker County.
Fred L. Webb, Bibb County.
W. J. Turner, Turner County.
Ralph H. Chaney, Richmond County.
M. M. Head, Pike County.
A. F. White, Butts County.
C. K. Sharp, Councilor 2nd District. Tri-County.
L. F. Lanier, Screven County.
T. E. Rogers, Bibb County.
J. K. Maloy, Telfair County.
J. M. Kenyon, Stewart-Webster.
Frank Norman, Muscogee County.
W. A. Mulherin, Richmond County.
R. L. Carter, Upson County.
A. J. Mooney, Bulloch-Candler Counties.
L. C. Allen, Jackson County.
J. M. Smith, Lowndes County.
S. J. Lewis, Councilor 10th District.
John M. Anderson, Vice-Councilor Lamar County.

Cleveland Thompson, Jenkins County.
 G. L. Anderson, Monroe County.
 W. F. Sibbett, Coffee County.
 J. G. Dean, Terrell County.
 Marion C. Pruitt, Fulton County.
 Marion T. Benson, Fulton County.
 C. W. Twitty, Tri-County.
 M. N. Stow, Wayne County.
 J. C. Watt, Floyd County.
 H. R. Slack, Troup County.
 C. E. Suggs, Lamar County.
 A. S. M. Coleman, Councilor 11th District.
 Linton Gardine, Clarke County.
 R. L. Miller, Burke County.
 W. H. Myers, Chatham County.
 President Boland, Secretary Bunce and
 Parliamentarian Clark, were also present.

REPORTS OF COMMITTEES (continued)

Committee on National Defense: Secretary Bunce presented the following report for the Chairman, Dr. R. R. Daly:

Dr. Palmer moved the adoption of the report as read.

Motion seconded and carried.

Committee on Health and Public Instruction: Dr. Theo. Toepel, Chairman, presented their report.

Dr. Toepel moved the adoption of his report.

Motion seconded and carried.

The President: The question of providing manuals will have to be referred to the Council.

Dr. Toepel: This is the third time the Committee on health and public instruction has recommended the matter of periodic health examinations, but it seems we cannot get cooperation.

The President: Dr. Haggard was to make this presentation at this meeting, but is unable to be present. I agree with Dr. Toepel that this should be done.

Report of Delegates to American Medical Association: Dr. E. C. Thrash presented their report.

Dr. Thrash moved the adoption of the report.

The motion to adopt was put to a vote and unanimously carried.

UNFINISHED BUSINESS

Committee to Investigate Matter of Dr. Woods' Membership:

Dr. Head: My Committee recommends that nothing further be done in the matter.

The Parliamentarian: It seems to me the proper report would be that they have made efforts to have this man become a member again, but were unable to accomplish anything. If at any time Dr. Woods should see fit to make application to the Butts County

Medical Society in due form it will be up to them to take the application and consider it. The State Association cannot accept Dr. Woods or any other man unless he is a member of his County Society. I think the only record on the minutes should be that the Committee have done everything possible to bring about a reconciliation between the Butts County Medical Society and Dr. Woods, but have been unable to accomplish anything.

Dr. Head: I accept the amendment, but I do feel that he should know that we think he is ineligible.

Upon motion duly seconded and carried Dr. Head's recommendation, as amended by Dr. Clark, was adopted.

NEW BUSINESS

Report of Auditing Committee: Dr. T. C. Thompson, Chairman, presented the following report:

"We, the Committee appointed to audit the books and accounts of the Secretary-Treasurer of the Medical Association of Georgia, have gone over the receipts and expenditures of the Association for the year 1925-1926 and find them correct.

(Signed) T. C. THOMPSON, Chairman.
 O. W. ROBERTS.
 C. K. SHARP."

Upon motion duly seconded and carried the report was accepted as read.

Dr. J. W. Palmer: I noticed in the report of our delegate to the American Medical Association that the third highest honor in the power of the Association had been bestowed upon our distinguished Secretary, who has been made Vice-Speaker of the House of Delegates of the American Medical Association. I move that we give a rising vote of thanks and appreciation of that election.

Motion seconded by several and unanimously carried.

Dr. Palmer then offered the following amendment to the By-Laws:

Chapter VI, Section 3, line three, after the words President and Secretary add: "The Commissioner of Health, and a subcommittee consisting of three members from each Councilor District, and appointed by the Chairman when needed." When amended this Section would read: "The Committee on Public Policy and Legislation shall consist of three members and the President and Secretary, the Commissioner of Health, and a subcommittee of three members from each Councilor District, appointed by the Chairman when needed."

Dr. Palmer then presented the following resolution:

"To the President of the United States, Secretary of the Treasury, the Senate Com-

mittee on Finance. The Ways and Means Committee of the House, Senators and Congressmen of Georgia:

"We, the Medical Association of Georgia, now in session in Albany, Georgia, this 12th day of May, 1926, do hereby strongly protest against the passage of Senate Bill No. S. 4085, introduced by Senator Smoot, amending the Harrison Narcotic law with the purpose of strengthening it, but to the contrary weakening it. We earnestly petition you to defeat said bill or amendment, because it is pernicious and places an unbearable burden upon the physicians and druggists, and attempts to regulate the practice of medicine, and interferes with State rights."

Motion seconded and discussed by Drs. Palmer, Myers and Clark.

Dr. Palmer's motion to adopt the resolution was then put to a vote and unanimously carried.

Dr. R. L. Miller: I move that a telegram be drafted and sent by the Chairman of the Committee on Public Policy and Legislation to our State Senators asking them to defeat the bill.

Motion seconded and unanimously carried.

Dr. Palmer brought up the question of lye legislation, and asked that it be considered.

Dr. Thrash explained that this was all taken care of in the report of the Delegates to the American Medical Association, which had been adopted.

Dr. C. E. Waits presented resolution regarding the Bureau of Vital Statistics.

Dr. Toepel moved the adoption of the resolution. Motion seconded and unanimously carried.

Dr. Waits: We spoke last night about a section of our Medical Practice Act not having been repealed. This question came up in our own County last fall when one of our members made an effort to recover a bill by suit. One of the attorneys found this little technicality in the law, and through it the doctor lost the suit. This was of such importance to the doctors throughout the State that our local society decided to make a test suit of it. The expense of this case going through all the courts will be approximately \$250.00.

I therefore move that we recommend to the Council that it appropriate one-half of this sum, the local society to take care of the other half.

Motion seconded and carried.

Dr. Clark stated that the Constitution and By-Laws took care of this without motion.

The President: The matter will be referred

to the Council. Is there any further business?

Dr. Toepel: I would like to enlarge upon my report in urging that the members of the Association consider this matter of co-operation between the various fraternal organizations, the Elks, and so forth, and our Association. This is in force all over the State, and should have our support.

Dr. Mulherin: It was mentioned last night that nothing had been done about paying the expenses of our guests. As a member of the Committee on Scientific Work, I think the honor of being invited to come before us is enough, without paying their expenses, but this is done in some states, and I would like to have the wish of the House of Delegates as to our guests this year, as to whether we shall offer to pay their expenses or not.

The President: I think a better way would be to bring this matter up before the Council, and have them bring it to the House of Delegates. They can recommend as they see fit, and we can then take action. The Secretary will bring it up at the next meeting of the Council, tomorrow morning.

Dr. Cleveland Thompson suggested that the Committee on Hospitals be appointed for three years in the future.

Motion seconded and carried.

Report of Council: *Dr. V. O. Harvard,* Chairman, requested the Secretary to read the following report:

FIRST MEETING

The first meeting of the Council was held in Macon, on December 2, 1925, when the following action was taken:

1. Made a detailed survey of the membership.
2. Took active steps to increase advertising in the Journal.
3. Accepted the resignation of Dr. M. C. Pruitt as business manager of the Journal with regret, and thanked Dr. Pruitt for his faithful work.
4. Approved the action of the Butts County Medical Society in refusing to reinstate Dr. J. E. Woods.
5. Elected Dr. Cleveland Thompson delegate to the American Medical Association, with Dr. E. C. Thrash as alternate.

Adjourned.

SECOND MEETING

The second meeting of the Council was held in Atlanta, on April 7, 1926, when the following action was taken:

1. Took active steps to get members to pay up dues. Each society considered.
2. Authorized the Secretary-Treasurer to appoint an Associate Editor, to be of no extra expense to the Association.

3. Approved H. L. Rowe as executive secretary and business manager of the Journal, at a salary of \$150.00 per month.

4. Received report from each Councilor. Adjourned.

On motion duly seconded and carried this report was accepted as read.

As there was no further business at this time, on motion seconded and carried, the House of Delegates adjourned at 9:45 A.M., to reconvene at 8:00 A.M., Friday, May 14.

THIRD MEETING

FRIDAY, MAY 14, 1926

The House of Delegates was called to order at 8:15 A.M., by the President, Dr. Frank Boland, Atlanta.

ROLL CALL

The Secretary stated that he held in his hand the signed roll call of forty-one Delegates and Councilors, and moved that this constitute the roll call for this meeting.

Motion seconded and carried.

The President declared a quorum present, and the House duly constituted for the transaction of business.

Those present were:

C. W. Burtz, Cobb County.
C. W. Twitty, Tri-County.
H. M. Fullilove, Athens (2nd Vice-Pres.)
J. W. Daniel, Evans County.
J. M. Harper, Tatnall County.
W. F. Wells, Fulton County.
J. K. Quattlebaum, Chatham County.
R. L. Miller, Burke County.
Cleveland Thompson, Jenkins County.
J. W. Palmer, Ailey (Ex-President).
V. O. Harvard, Councilor 3rd District.
Ralph Freeman, Jackson County.
W. A. Mulherin, Richmond County.
A. S. M. Coleman, Councilor 11th District.
Fred L. Webb, Bibb County.
George L. Touchton, Delegate to Florida.
C. L. Ayres, Stephens County.
W. J. Hutchins, Gwinnett County.
J. M. Kenyon, Stewart-Webster Counties.
T. C. Thompson, Councilor 12th District.
T. E. Rogers, Bibb County.
J. M. Anderson, Vice-Councilor 6th Dist.
M. M. Head, Councilor 6th District.
C. K. Sharp, Councilor 2nd District.
W. H. Myers, Chatham County.
W. R. Dancy, Savannah (1st Vice-Pres.)
O. W. Roberts, Councilor 4th District.
E. C. Thrash, Councilor 5th District.
J. R. Evans, DeKalb County.
Marion T. Benson, Fulton County.
Marion C. Pruitt, Fulton County.
H. J. Carswell, Ware County.
R. L. Carter, Upson County.
Ralph H. Chaney, Richmond County.

G. L. Alexander, Monroe County.

A. J. Mooney, Bulloch-Candler Counties.

W. F. Sibbett, Coffee County.

H. L. Erwin, Whitefield County.

President Boland, Secretary Bunce, and Parliamentary Clark, were also present.

MINUTES

Minutes of the previous meeting were read and adopted.

UNFINISHED BUSINESS

The Secretary read the proposed amendment to the By-Laws, Chapter VI, Section 3, line 3, introduced by Dr. Palmer at the preceding meeting.

Dr. Clark moved that the amendment be adopted.

Motion seconded by several and unanimously carried.

NEW BUSINESS

Dr. Palmer introduced the following resolution, and moved its adoption:

"Whereas, the question of hereditary disease, and the transmission of communicable diseases is a medical one, and

"Whereas, the entering into the marriage state is an agreement in which the State and Nation are interested, and is in a measure the question not alone of our citizens and taxpayers, but of the coming generation, and

"Whereas, the movement for proper safeguards to the innocent should originate with our profession because of our knowledge of the havoc wrought, therefore be it

"Resolved, that a committee of five be appointed by the incoming President to draft a marriage relations bill to be submitted to the next annual session of our Association, with such recommendations as they see proper after a careful survey of the situation, and a review of the laws of the other commonwealths of our Nation involving the marriage state."

Dr. Thompson seconded Dr. Palmer's motion to adopt.

Dr. Clark suggested that the Committee on Public Policy and Legislation would be the proper committee to have charge of the matter.

Dr. R. L. Miller offered as a substitute motion that the matter be referred to the Committee on Public Policy and Legislation.

Motion seconded by Dr. Clark and carried.

Dr. E. C. Thrash introduced the following resolution, and moved its adoption:

"Whereas, the Southern Medical Association is second only to the American Medical Association in size of its membership, and

"Whereas, it is second to none in the advancement of scientific medicine in the South, and

"Whereas, its membership from the Medi-

cal Association of Georgia, compared with those eligible for membership, is not as high as it should be, and

"Whereas, it would be a distinct advantage to the Medical Association of Georgia to have the next meeting of the Southern Medical Association in Georgia, therefore be it

"Resolved, that this House of Delegates recommend an appeal to our members to take an interest, both individually and collectively, in the forthcoming meeting in November so that we may make this the greatest meeting in the history of the organization, and be it further

"Resolved, that we ask and urge every member of the Medical Association of Georgia to enroll himself as a member of the Southern Medical Association.

Respectfully submitted,

(Signed) E. C. THRASH,

Chairman, Membership Committee.

Motion to adopt seconded and unanimously carried.

Dr. W. F. Wells: There was a question regarding the recommendation of Dr. Abercrombie's on Tuesday night which was tabled because of the discussion regarding clinics. I think we should reconsider the portion referring to the milk question very carefully. There are no milk laws whatever in many of the smaller towns, and many diseases are communicable by impure milk.

I move that the incoming President appoint a committee of three to study the milk question and report back at the next meeting of the Association.

Motion seconded by several.

Discussed by Dr. Head, who thought this should be one of the duties of the Committee on Public Policy and Legislation.

Dr. Clark endorsed Dr. Head's views.

Dr. Wells' motion was then put to a vote and lost.

Dr. Miller moved that the Committee on Public Policy and Legislation be requested to attend to this work.

Motion seconded and carried.

Dr. Clark gave notice of a proposed change in the Constitution which he thought would facilitate greatly the election of officers, and read Article IX, Section 3, which the proposed change would make read, "***** Delegates to the American Medical Association shall be elected at the same time and in the same manner, providing that the two receiving the highest votes shall be delegates, and the next two highest shall be alternates."

Dr. Clark: The Constitution and By-Laws of the American Medical Association provide

that delegates from the State Association shall be elected for two years, with alternates. Two years ago two delegates were elected at the same time, and some question was raised. The same thing happened this time because the American Medical Association met before the meeting of the Medical Association of Georgia. Our delegates' time expired last year, but the Constitution and By-Laws of the Medical Association of Georgia provide that officers shall serve until their successors are elected and installed. For this reason Dr. Bunce had to serve again. For this reason it seems to me wise to permit him to serve another year, elect two delegates this year for two years, and this would put it in proper form for the Constitution and By-Laws of the American Medical Association. If three delegates were elected this year there would be some question, and they might not be accepted.

Dr. Dancy: If a successor is not elected to an office at the expiration of a man's tenure of office does that officer hold over until a new man is elected to the position?

Dr. Thrash: We cannot elect delegates except for two years. If we elect three men for two years that will necessitate electing three every other year. If we fail to elect one at this time we can then elect two one year and one the next.

Dr. Palmer: I would like to know if "two years" means two calendar years or two meetings of the American Medical Association. I have always felt that it meant twenty-four calendar months, and if the American Medical Association meets three times in that period the delegates attend three meetings.

The President: Two calendar years.

Dr. Thrash: I move that two delegates be elected at this time, and that we allow the tenure of office of Dr. Bunce to extend until one year from this time.

Motion seconded by several.

Dr. Clark: I think this may not be quite clear to all of you, but last year the American Medical Association allowed us three delegates because of our increase in membership. Because the meeting of the American Medical Association fell before the meeting of the Medical Association of Georgia the Council appointed a delegate and an alternate. The alternate served, but this was only an interim appointment, and their time is up. Dr. Bunce is the only delegate we have at present.

Dr. Thrash's motion was put to a vote and carried.

Dr. Thrash then introduced the subject of the Gorgas Memorial, and stated that the

Council of the American Medical Association, after much consideration, disapproved of the Gorgas Memorial under its present management, and that the House of Delegates of the American Medical Association upheld this decision. He offered the following resolution:

"Whereas, the House of Delegates of the American Medical Association have expressed their disapproval of the Gorgas Memorial under its present management, therefore be it

"Resolved, that the House of Delegates of the Medical Association of Georgia advise their constituents not to subscribe to the Gorgas Memorial Fund until its management has been approved by the American Medical Association."

Upon motion duly seconded and carried this resolution was unanimously adopted.

The President: Is there any further business?

Dr. W. R. Dancy: I have for you this morning a pleasant surprise. I have been approached by a gentleman who has fallen in line with one of the splendid suggestions made by our President in his address yesterday. Our President suggested that it would be a splendid thing to have a prize of some sort offered for the best original work done during the year by the membership of this organization. I have been requested by a benefactor to offer to this Association a prize, which he suggested should be in the form of a medallion, or some other thing, which could be retained by the member of this Association who presents at the annual meeting a paper detailing his original work on some medical subject. The work must be original, and the decision as to which is the best piece of work he suggests shall be made by a committee of three appointed by the House of Delegates. The committee is to decide which papers are original, and which shall win the prize.

This benefactor insists that his name shall not be known, and that I temporarily act as his agent. I lay these simple facts before you, stating all of the conditions which he has stated to me, and it is up to this body to decide whether they will accept or reject this offer. This would-be donor insists that the prize shall be something other than money.

Dr. Thrash: I move that we accept this proposition.

Motion seconded and unanimously carried by rising vote.

Dr. Thrash: I now move you, Mr. President, that Dr. Dancy be appointed as a committee of one to confer with this benefactor and outline the exact plan for the handling

of this prize, and that this plan shall then be a part of these minutes.

Motion seconded and carried.

Dr. Dancy requested the Secretary to notify him in writing of the acceptance so that he might transmit the formal acceptance to the gentleman.

NOMINATION OF COUNCILORS

The following gentlemen were nominated as Councilors for their respective districts:

Ninth District: Dr. C. L. Ayres, Toccoa.

Tenth District: Dr. S. J. Lewis, Augusta.

Eleventh District: Dr. A. S. M. Coleman, Douglas.

Twelfth District: Dr. T. C. Thompson, Vidalia.

These nominations were put to a vote and unanimously approved by the House of Delegates.

Dr. Clark: I move that at the first meeting of each annual session of the House of Delegates the President appoint a committee of three from this body, whose duty it shall be to receive from the several representative counties in which there are vacancies nominations for Council or for their district, and to bring recommendations to this body for its action.

My object in making this motion is that each District has several counties, and some may feel that they have not been represented properly. This plan would permit the handling of this matter in advance.

Motion seconded by Dr. Miller and carried.

Dr. Bunce offered the following resolution:

"Resolved, that the Medical Association of Georgia express its fullest appreciation to its host, the Dougherty County Medical Society, and to the Woman's Auxiliary, for the hospitality and entertainment accorded us by them, which we have so greatly enjoyed throughout the meeting, and be it further

"Resolved, that our thanks be extended to the Mayor and other City Officers, to the management of the hotels, and to the Albany newspapers for the publicity they have given us in their reports of our meetings."

On motion duly seconded and carried this resolution was unanimously adopted by a rising vote.

Dr. Clark: I move that we extend a vote of thanks to our present officers for their services through the year, and their conduct of the meeting.

Motion seconded and unanimously carried by rising vote.

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Profession of Georgia.

139 Forrest Ave., N. E., Atlanta, Ga.

SEPTEMBER, 1926

ALLEN H. BUNCE, M.D., Editor

R. S. LEADINGHAM, M.D.,

Associate Editor

H. L. ROWE

Business Manager

Publication Committee

E. C. THRASH, M.D., Chairman

A. S. M. COLEMAN, M.D.

M. M. HEAD, M.D.

Articles are accepted for publication on condition that they are contributed solely to this Journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Reprints should be ordered within 30 days after the appearance of an article, since all type will be destroyed at the end of that time.

Editorial Department

IMPORTANT NOTICE

Don't forget the meeting of the Southern Medical Association in Atlanta, November 15th to 18th. The largest number of physicians and surgeons ever assembled in Georgia will be present. The Woman's Auxiliary is expecting over 1,000 visiting ladies. Georgia now has only a little over 600 members of the Southern Medical Association. We should have more than twice this number. This meeting alone will be worth more than the annual dues. Their Journal, which is published monthly, is one of the best in America. The dues, which include subscription to the Journal, are \$4.00 per year. If you are not already a member, forward your check for \$4.00 to Mr. C. P. Loran, Secretary-Manager of the Southern Medical Association, Empire Bldg., Birmingham, Ala. Every member of the Medical Association of Georgia should help make the forthcoming meeting the greatest in the history of the Association.

TOXIN-ANTITOXIN

State Board of Health

The State Board of Health has secured enough Toxin-Antitoxin to immunize 200 children (600 doses) against diphtheria in each county of our State. It is free. The conditions under which it will be distributed are:

Some committee of citizens must get a sufficient number of children of the community ready to be immunized, forming a Toxin-Antitoxin Clinic. On this committee should be the physicians representing the profession, some one of which must order and be responsible for the Toxin-Antitoxin; to see that it is kept under constant refrigeration and to return all that is unused at the expiration of 30 days from its receipt. A list of the children attending the clinic and receiving the immunization, must be furnished the State Board of Health with the age of the child and its parent's name and address.

No child over seven years can receive the free Toxin-Antitoxin, but all children under ten years should be immunized. A charge of 15c should be collected for all children over seven and remitted to the State Board of Health. Free Toxin-Antitoxin can not be sent to individual physicians for individual use, but only for group administration, and the committee should not order out the supply before the groups are formed and they are ready to administer it.

I would suggest that the physicians get together at once and appoint your committee and that other organizations like the Parent-Teacher Association, Women's Clubs, etc., be enlisted. Put on a campaign of publicity at once; educate the people to immunize the children and effectually stamp out diphtheria. If you need more than the 200 doses allotted you, take the matter up with me.

JOE P. BOWDOIN,

Director, Division of Child Hygiene,

Special Agent, Children's Bureau.

The Medical Association of Georgia heartily endorses this movement for the prevention of diphtheria in our state.

V. O. HARVARD, M.D.,

President.

DIARRHOEA

Diarrhoea occurs as a manifestation of many and varied pathological conditions. It may be the means of ridding the gastro-intestinal tract of irritating substances or harmful bacteria, or it may occur as the result of systemic or emotional disturbances.

In cholera, death ensues because the frequent gripping, watery discharges soon deplete the body of its fluids. Amebic dysentery produces a more or less pronounced secondary anemia, and its chronicity renders the sufferer especially susceptible to intercurrent infections.

In the frequent "summer complaints," infections by any one or more of the colon group of bacteria, the repeated evacuations may cause the patient to lose a great deal of strength and weight. Ordinarily in these conditions, the use of proper dietetic and medicinal measures to rid the gastro-intestinal tract of the offending material and sustain the individual, will bring about speedy relief.

When the diagnosis is in doubt and these measures fail, or where the diarrhoea is more insidious in its onset, continued effort to check a process that may be but one indication of widespread pathology should not be made without a careful inquiry into the probable cause.

Cabot (1) classifies the most important causes of diarrhoea as follows:

1. Intestinal disease.
 - a. Indigestion (acute and chronic).
 - b. Ulceration (some cases only).
 - c. Cancer of colon or rectum.
 - d. Intussusception.
 - e. Infectious diseases (cholera, dysentery, typhoid).
 - f. Intestinal parasites.
2. Outside influences.
 - a. Nervous causes (emotion, Basedow's disease, etc.)
 - b. General infections (sepsis).
 - c. Cachectic states (anemias, nephritis, etc.)

and states that, "By a search of these causes, as well as by the use of the data obtained by the examination of the stool, we arrive at an

understanding of the diagnostic significance of diarrhoea."

Syphilis in Pregnancy. Alfred C. Beck, New York State Journal of Medicine, June 15, 1926, p. 563.

It is the author's custom to begin anti-syphilitic treatment as soon as the diagnosis is made irrespective of the period of gestation. Six intravenous injections of Salvarsan are given at weekly intervals. At the same time intramuscular mercury injections are started and continued for a period of 12 weeks. If, after this course of 6 Salvarsan and 12 mercury injections the Wassermann is still positive, a second similar course is given.

The 144 syphilitic women included in this series were cared for during a part or the whole of 166 pregnancies. All had strongly positive Wassermans as well as other definite evidence of syphilis. No cases, therefore, are included in which the diagnosis was based solely upon serological findings. Thirty-three patients went into labor before Salvarsan could be given. Nine of these gave birth to living syphilitic infants and 16 resulted in still births. Eight, or 24 per cent, of these 33 untreated pregnant women gave birth to living children which showed no evidence of syphilis. At least one course of antisyphilitic treatment was given to 76 women. Sixty-four, or 84 per cent, of these went to term and were delivered of apparently normal infants. Of the remaining 12, 6 gave birth to living syphilitic infants and 6 terminated in still births.

From 1 to 5 injections of Salvarsan were given to 57 cases. Forty, or 70 per cent, of these terminated in the birth of apparently healthy infants. Ten had still births and 7 were delivered of living syphilitic children.

LEMON EQUAL IN VALUE TO OTHER CITRUS FRUITS

There is not the slightest scientific evidence that lemon juice is of any value in beautifying the human form, says *Hygeia* for September. However, both the juice and the peel have been found to contain vitamins.

(1) Cabot, *Physical Diagnosis*, Eighth Edition, p. 391. Wm. Wood & Co.

Woman's Auxiliary Medical Association of Georgia

OFFICERS

President.....Mrs. C. W. Roberts, Atlanta Parliamentary.....Mrs. Allen H. Bunce, Atlanta
Vice-President.....Mrs. W. L. Davis, Albany Secretary-Treasurer, Mrs. Marion T. Benson, Atlanta
Honorary President, Mrs. James N. Brawner, Atlanta

District Managers

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2nd District.....Mrs. Gordon Chason, Bainbridge	8th District.....Mrs. Paul Holliday, Athens
3rd District.....Mrs. R. H. Pate, Unadilla	9th District.....Mrs. J. H. Downey, Gainesville
4th District.....Mrs. R. S. O'Neal, LaGrange	10th District.....Mrs. W. W. Battey, Sr., Augusta
5th District.....Mrs. Marion C. Pruitt, Atlanta	11th District.....Mrs. B. H. Minchew, Waycross
6th District.....Mrs. C. H. Richardson, Jr., Macon	12th District.....Mrs. T. C. Thompson, Vidalia

COMMITTEES

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Mrs. W. H. Cabaniss Athens
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COMMITTEE ON ORGANIZATION

Mrs. L. F. Lanier, Chairman Rocky Ford

EIGHTH DISTRICT WOMAN'S AUXILIARY

The Auxiliary to the 8th District Medical Association met in the Methodist Church at Royston, Ga., August 11, 1926. In the absence of the District Manager, Mrs. Paul L. Holliday of Athens, the meeting was called to order by the Franklin County President, Mrs. Stewart D. Brown. "America the Beautiful" was sung, the minutes of the last meeting read. The roll call of the organized counties was responded to by splendid reports of what each county has accomplished during the past year. After which Mrs. Brown introduced the State President, Mrs. C. W. Roberts of Atlanta, who responded with a very interesting and instructive talk on the aims and possibilities of the organization. She urged the members to register and vote on matters pertaining to the health of the country and especially stressed the importance of the "Ellis Health Law." Mrs. Roberts' talk was greatly enjoyed by every one present and was followed by two beautiful solos by Miss Lois Brand, accompanied by Mrs. Starks Ginn at the piano. Following this, Dr. C. W. Rob-

erts was introduced by Mrs. Brown. He made a very forceful talk along the line of Health Education, after which the meeting closed with prayer by Mrs. H. L. McCrary and the members and visitors joined the doctors of the 8th District on the lawn of Dr. H. L. McCrary's home where a barbecue was served.

MRS. G. T. RIDGWAY,

Dist. Sec. and Treas.

MEMBERS OF THE WOMAN'S AUXILIARY TO FULTON COUNTY MEDICAL SOCIETY MEET

Members of the woman's auxiliary to the Fulton County Medical Society met for the first fall meeting Friday, September 10, at the Academy of Medicine.

The meeting was opened with prayer followed by the newly elected president, Mrs. Allen Hamilton Bunce. Mrs. Bunce asked the co-operation and support of all members in the main phases of work sponsored by the auxiliary. Mrs. Marion C. Pruitt read a splendid report of the recent state convention held in Albany to which she was a delegate.

(Continued on page 377)

COMMUNICATIONS

To the Editor:

Since my experience is that of the common lot I am sure it is well to relate to you a recent experience in dealing with tuberculosis, first in Georgia and second in Massachusetts, with the hope that it will assist in arousing our fellow physicians to bestir themselves and make a united effort to crystallize public opinion in demanding more rapid advancement of tubercular control in Georgia. Just two examples which any physicians could give; first: a negro presented herself in the last stages of tuberculosis, accompanying late symptoms of anxious, hunted expression, marked emaciation, rapid heart and rapid respiration, high fever, persistent cough, marked dullness in apices, fine crackling rales in some areas to amphoric breathing in another area, no funds, little and undesirable food, no place to go in Georgia except back home to a struggling and silent, but wondering, husband and several small children. The second case: a white woman, presenting similar symptoms but with an entirely different social environment. Her husband had deserted her and her two little boys are struggling manfully out of school hours by selling papers, thus probably building foundations for a genuine manhood if they escape the "White Plague." The Associated Charities are helping so far as the necessities of life go, but are unable to prevent. The white woman could in time be sent to our state institution, too late to benefit her or the boys either perhaps.

Massachusetts has an institution where the third stage cases are sent and given wonderful care. They are made so happy until the fact that they will never be carried away alive does not seem to disturb them. They have other places throughout the state to care for their curable cases. Education has been so thorough among both laymen and physicians, emphasizing the importance of early diagnosis and treatment that Dr. Cabot very hopefully remarks that in his opinion there will be practically no tuberculosis in Massachusetts within the next ten years. I know Georgia is doing something but I also believe that we can do more if we do our part. I believe you, through the Journal, can do more to help the helpless than any other doctor in Georgia. What do you think? What do you say? Let's go!

Fraternally,

J. A. REDFEARN.

Albany, Ga.

Southampton, N. Y., August 16.

To the Editor:

I want to express to you and all members of the Medical Association, my deep appreciation of your kind sympathy in my great bereavement.

It is a great comfort to have your friends thinking of you.

Dr. White's interest in the Medical Association never wavered and his admiration of his many friends knew no bounds.

Sincerely,

(MRS.) LULA MOSELEY WHITE.

Thomasville, Ga., August 1, 1926.

To the Editor:

I noticed a couple of letters in the Journal from Dr. Dean and Dr. Rogers in regard to supporting a candidate for Governor. I think that it will be well to continue the Journal as a medical publication and keep both the Journal and the Association out of politics. We have plenty of internal politics and may take them up as a side line but I do not think the Medical Association should be expected to act as a political unit to support any one man.

Give the individual doctor credit for having enough gray matter to vote his own ticket.

For the interest of the Association.

Sincerely yours,

HENRY MOORE, M.D.

BOOKS RECEIVED

New and Non-official Remedies, 1926. Containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1926. Contains 459 pages. Cloth. Publishers: American Medical Association, 535 N. Dearborn St., Chicago.

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1925 with the comments that have appeared in the Journal. Contains 90 pages. Cloth. Publishers: American Medical Association, 535 N. Dearborn St., Chicago.

The Surgical Clinics of North America (Issued serially, one number every other month). Volume VI, Number III (June, 1926). Contains 214 pages, 54 illustrations. Per clinic year (February, 1926, to December, 1926). Price: Paper, \$12.00; Cloth, \$16.00 net. Publishers: W. B. Saunders Company, West Washington Square, Philadelphia.

Gould's Medical Dictionary, by George M.

Gould, M.D., author of an Illustrated Dictionary of Medicine, Biology and Allied Sciences; the Practitioner's Medical Dictionary; Pocket Medical Dictionary, Biographic Clinics. Containing all the words and phrases generally used in medicine and allied sciences, with their proper pronunciation, derivation, and definition. Edited by R. J. E. Scott, M.D., Fellow of the New York Academy of Medicine; based on recent medical literature. Contains 1,398 pages. Price, \$9.00. Publishers: P. Blakistons' Son & Company, 1012 Walnut Street, Philadelphia.

The Duodenal Tube and Its Possibilities, by Max Einhorn, M.D., Professor of Medicine at the New York Post Graduate Medical School; Visiting Physician to the Lenox Hill Hospital, New York. Second Edition, revised and enlarged. Contains 206 pages. Price: Cloth, \$3.00 net. Publishers: F. A. Davis Company, 1914-16 Cherry Street, Philadelphia, Pa.

Practical Materia Medica and Prescription Writing with illustrations by Oscar W. Bethea, M.D., Professors of Clinical Therapeutics, Tulane School of Medicine; Professor of Therapeutics, Tulane Graduate School of Medicine; Chief of Medical Staff Southern Baptist Hospital, New Orleans. Fourth revised edition. Contains 498 pages. Price: Cloth, \$4.50 net. Publishers: F. A. Davis Company, 1914-16 Cherry Street, Philadelphia, Pa.

NEWS ITEMS

Dr. Bernard W. Carey, Director of the Commonwealth Fund Child Health Demonstration in Athens, Georgia, has recently been awarded the honorary degree of Doctor of Public Health by the University of Georgia. The degree was given in recognition of Dr. Carey's Services in promoting child health in Georgia.

Dr. William A. Smith announces the opening of his office at 78 Forrest Ave., Atlanta, Ga. Practice limited to Neurology.

Dr. W. B. Heller, who has been incapacitated, has completely recovered his health and is now living and practicing medicine in Detroit, Mich. He has been at his old home in Lavonia for rest and recreation for the past two months.

Dr. J. H. Riley, formerly of Sylvester, Jones County, has removed to Baconton, Mitchell County.

Dr. R. S. Leadingham announces the removal of his offices to 65 Forrest Ave., Atlanta. Practice limited to internal medicine and diagnosis.

The Palm Beach County Medical Society will entertain the Florida Medical Association in Palm Beach, Florida, this fall.

Dr. J. T. McCall, owner of the Francis Berrien Hospital, Rome, announces that plans for modern improvements of the hospital have been received and are now in the hands of contractors which will add to the efficiency of the medical and surgical staff and for the comfort of the patients.

Drs. Frank Bird and J. F. Mixson, Valdosta, will build a hospital on Central Ave., Stephens and Briggs St., Valdosta, at a cost of more than \$50,000.00. The hospital will have every convenience for the comfort of patients and the equipment will be as modern as can be purchased.

Dr. M. E. Winchester of the State Board of Health, visited Monroe early in August to ascertain the cause of a few cases of typhoid in that city. He pointed out the cause and suggested the remedy.

The City Commission of Columbus appropriated \$2,500.00 for the payment of all outstanding liabilities of the City Hospital.

Dr. R. E. McClure, a graduate of Emory University School of Medicine, assumed his duties as health officer for Brooks County on September 1. He was formerly health officer for Jackson County, Ala.

Dr. W. C. McCarver, Vidette, held a pre-school clinic for the Vidette-Rosier public schools, assisted by Mrs. Rose B. Hodson, American Red Cross and Sheppard-Towner Public Health Nurse for Burke County which was promoted by the Parent-Teachers Association.

Dr. J. M. Smith, formerly of Good Hope, has moved to Monroe for the practice of medicine and surgery. He was formerly resident physician for Montgomery Hospital, Norristown, Pa.

Dr. J. W. Oden, formerly of Milledgeville, has removed to Gracewood and accepted the superintendency of the Georgia Training School for Mental Defectives.

Dr. Stewart R. Roberts, Atlanta, read a paper on "Diseases of the Circulatory System" before the Spartanburg (S. C.) County Medical Society on July 30.

Dr. J. B. Ward, Macon, has removed from the Grand Building and opened a suite of offices at 817 Georgia Casualty Building, Macon.

The Mother's Club of the Harrell Grove Sunday School at Camp Gordon sponsored a neighborhood clinic at the home of Mr. and Mrs. C. N. Harrell on July 30. Dr. C. L. Allgood, Scottsdale, and Dr. J. R. Evans, Decatur, examined the

children and as a result of the examinations several tonsil operations and much follow-up work have been planned.

The Eighth District Medical Society met in Royston on August 11. Eight papers were on the program which were read by physicians from Athens, Atlanta and Royston. Dr. V. O. Harvard, President of the Association, delivered an interesting address.

Dr. Hugh N. Page, Augusta, read a paper on "Pain in the Back with Reference to Abdominal Symptomatology" before the Richmond County Medical Society at its monthly meeting held July 15. Dr. W. H. Goodrich led in discussion by giving an appropriate sketch of the physiological points involved.

Dr. W. C. Williams, Delray, Florida, surgeon for the Seaboard Air Line Railroad, was called recently to Atlanta by the illness of a niece.

Dr. J. D. Applewhite, Macon, City and County Health Officer, asks the people to co-operate with him in his work to prevent typhoid. He points out that deaths from typhoid have shown a constant decrease since 1900. In 1904 the rate had been reduced to 6.7 per 100,000 population.

The management of the Monroe Hospital at Monroe, has arranged for free inoculation against typhoid for the people of Walton County and many have taken advantage of this service.

Dr. W. C. Humphries, Griffin, Health Officer for Spalding County, has been busy vaccinating people for the prevention of typhoid.

X-Ray pictures are made of every baby born at Grady Hospital when it is five days old for the detection of possible enlargement of the thymus gland.

Dr. and Mrs. E. B. Davis, Byromville, entertained the members of the Dooly County Medical Society and the Woman's Auxiliary at their home recently. The business meeting of the society was held on the lawn while the meeting of the Auxiliary was held in the library. A group of young ladies assisted Dr. and Mrs. Davis in entertaining and serving refreshments.

Dr. R. M. Ware, a well known member of our Association, has returned to Fitzgerald after spending several months in Miami.

Dr. W. H. Houston, Americus, Health Officer for Sumter County, has given thirteen hundred people of his county complete inoculations as a preventative against typhoid in the past six months.

Dr. B. B. Bagby, formerly of Richmond, Va., has been elected Health Officer for Clarke County.

The medical societies of Burke, Emanuel, Jenkins and Screven Counties held a joint meeting at the Rogers Club House near Millen on the afternoon of August 25. They were entertained by the Jenkins County Medical Society to an elaborate barbecue. Dr. E. T. Coleman, Graymont, presided over the meeting; Dr. Q. A. Mulkey read a paper on the "Acute Abdomen;" Dr. R. C. Franklin, "The 1926 International Clinic;" Dr. W. R. Lovett, "Preventative Medicine;" Dr. H. G. Lee, "The 1926 Pediatric Seminar at Saluda, N. C.;" Dr. C. Thompson, "Demonstration of X-Ray Plates of the Gall-Bladder and of Osteomyelitis with remarks."

Dr. W. W. Evans, Oxford, is now eighty-one years old and the oldest practicing physician in Newton County.

Dr. G. M. Corput, United States Health Officer, stationed in New York, visited Atlanta recently after an absence of thirty years.

Dr. G. H. McArthur, Rome, returned recently from Washington University, St. Louis, where he has been for some time studying diseases of the eye, ear, nose and throat. He has opened offices in the First National Bank Building.

Dr. B. C. Teasley, Hartwell, was elected president of the Eighth District Medical Association at their meeting held in Royston on August 12; Dr. G. R. Wells, Monroe, Vice-President; Dr. D. M. Carter, Madison, re-elected Secretary-Treasurer.

Dr. Tom A. Williams who left Washington last winter to limit his practice to neurology and psychiatry, in Florida, is recovering from a fracture of the humerus and has now resumed work at his office in the Exchange Building, Miami, Fla.

DR. GEO. R. WHITE*

By DR. RALSTON LATTIMORE
Chairman Committee

Hundreds of Savannahians lost a warm friend and surgical science lost one of its most forward-looking, progressive and capable exponents and practitioners in the death of Dr. George R. White, 60, who passed away in Pasadena, California, following an extended period of failing health.

One of the most modest and self-effacing of men, Dr. White was also among the greatest of American Surgeons, one who strode fearlessly onward through faint, little trodden

*Copy of Obituary for Georgia Medical Society.

paths of science, through the night of theory in search of the broad daylight of established truth and fact. Operations performed by him are pointed out today as examples of delicacy and precision, with some of them in a class alone for rareness, bravery of attack and skillful treatment.

Honors and recognition of ability came thick and fast upon Dr. White before his life was cut short while still but little past the prime. Only a year ago he was invited to read a paper before the International College of Surgeons of the Association at the 1925 annual meeting of that body held in London. His failing health prevented his complying with the request.

At the time of his death he was a member of the College of Surgeons, the American Society of Obstetricians and Gynecologists, National Committee of the American Society for the Control of Cancer, the Georgia State Medical Association, the American Medical Association, the Georgia Medical Society, the Independent Presbyterian Church. He was a past master of Solomons Lodge F. and A. M. A member of Alee Temple, Savannah, a former alderman and a former chairman of the Savannah Public Health Commission.

Dr. White was born on Long Island on January 24, 1866. He attended Oberlin College, Oberlin, Ohio, going from there to Cornell University at Ithaca, N. Y., in 1884. He was graduated from Cornell in 1888 and entered the College of Physicians and Surgeons of Columbia in New York City, where he was graduated in 1891. While at Columbia he won the \$500.00 Harsen prize for excellence in his work and studies. He was an interne at the Methodist Brooklyn Hospital for a year and a half, leaving the hospital to go abroad for a continuation of his studies.

Freiberg, in Baden, Germany, was the first scene of his foreign studies. He later entered the University of Vienna, remaining a year. After this Dr. White returned to America, taking a position at Dr. T. G. Thomas' sanitarium in New York City. He was in that city from 1893 until 1898 and was in that time connected with various hospitals and dispensaries. He was gynecologist of the New York Dispensary, associate physician of the

Society of the Lying-in Hospital, instructor in operative surgery at the New York Post Graduate College and attending physician at Lincoln Hospital.

Dr. White entered the army at the outbreak of the Spanish-American War, serving as surgeon in the U. S. Volunteer Calvary in Jacksonville, Fla., Savannah, Cuba, and the Philippines. He returned to the United States in January, 1901, and located in Savannah in May of that year. He was half owner and surgeon in chief of Park View Sanitarium for some time.

He is survived by his widow, Mrs. Lula Mosley White, three brothers and two sisters. Dr. White had been in failing health for several years prior to his death. He spent the last two years with the exception of short visits home to Savannah, in the West in a vain effort to regain his strength and vitality.

Dr. George R. White lives in the hearts of those whom he had daily and hourly tried to serve; lives in the hearts of those to whom he brought health and healing, as he daily ministered to their sufferings; lives in the hearts of the widows and orphans, to whose calls of distress he never turned a deaf ear; lives in the hearts of his friends as a pattern of a gentleman and a citizen; lives in the memory of his professional brethren as a conspicuous example of the devoted, self-sacrificing physician.

A most noted trait of his character was the kindly and respectful consideration and innate modesty of self-opinion with which he treated the younger brethren of his profession. Not to him did it occur to disparage merit on account of youth and thus "damn with faint praise."

A true scientist in his profession, a thorough gentleman in his life, he leaves behind him an impressive example for our emulation, and a memory that "smells sweet and blossoms from the dust."

Dr. Alfred H. Black, Thomaston, died July 27, 1926, in Atlanta at a hospital where he had been rushed for treatment after a sudden change in his condition. He was born in 1869 near Americus and had lived in that section all his life. He received his collegiate education at Mercer University and received his medical degree from Tulane

University, New Orleans. He had been a prominent physician of Thomaston for thirty-five years. He was a member of the Thomas County Medical Society, Medical Association of Georgia and the American Medical Association, Alpha Tau Omega Fraternity, Mason and the First Methodist Church of Thomaston. Dr. Black is survived by his widow; one daughter, Mrs. D. P. Whelchel; one granddaughter, Miss Mary Cato Whelchel of Atlanta. Funeral services were conducted from the First Methodist Church and interment in the local cemetery.

Dr. J. H. Greene, Hartsfield, died July 15, 1926, at the John D. Archbold Hospital, Thomasville. He was born in 1869 in Bulloch County. Immediately after he graduated from a medical college located in Colquit County more than thirty years ago and became a constructive and progressive leader in the Hartsfield section. He retired from the active practice of medicine several years ago and devoted his entire time to the supervision of his large farming interest and to his duties as a member of the Board of County Commissioners. He is survived by his widow and two sons, Messrs. Herman and J. B. Greene.

Dr. William Rawlings, Sandersville, died at his home August 1, 1926. He was born in 1851, three miles west of Sandersville. He was educated at Sandersville and later studied medicine and received his degree from the University of Maryland and began as a general practitioner at his home town. He was married to Miss Clara Quinn Hollifield, who died several years ago. He held a noted record as a surgeon and some of the most remarkable surgical operations were performed by him. Patients have been attracted there from every Southern State and some from the North. About twenty-five years ago he gave up the general practice of medicine and established the Rawlings' Sanitarium and was assisted in his work by a number of competent physicians and thirty-five to forty trained nurses. Later in life as a diversion from his work as a physician and surgeon he established the Fern Crest Guernsey Dairy Farm composed of a tract of fourteen hundred acres of land and raised some of the very finest Guernsey milk cows. He represented his county in the legislature at one time and tiring of politics never offered for office again although later he was solicited to make the race for congress. Dr. Rawlings made many trips abroad and

studied surgery at the Queen's Hospital in London, the leading hospitals in Germany and other European countries.

He is survived by two sisters, Mrs. B. E. Roughton, Macon, and Mrs. A. R. Butts, Atlanta; one brother, Mr. Charles G. Rawlings, Sandersville, several nieces and nephews.

Funeral services were conducted from the residence of his nephew, Dr. Fred B. Rawlings and interment in the city cemetery.

Dr. W. R. Brigham, Dublin, died at his home July 29, 1926. He was born in Burke County in 1874. After finishing the common schools of Burke County, he attended Young Harris college in Towns County, from there he went to the University of Georgia, Medical Department, Augusta, and after graduating served one year as an interne. He located in Dublin and after practicing there for several years took a post-graduate course in New York. He was successful in the practice of his profession and as a business man. Dr. Brigham was a director in the First National Bank of Dublin, one of the organizers of the Dublin Sanitarium and interested in the Brigham-Claxton Sanitarium, local surgeon for the Macon, Dublin and Savannah Railroad. He is survived by his widow, formerly Mrs. Lottie Robinson Turner of Baltimore, Md., three daughters, his mother and a number of brothers and sisters. He was a member of the Masonic Lodge, Shriners, Laurens County Medical Society, Medical Association of Georgia and the First Methodist Church. Funeral services were held in Dublin and interment in the City Cemetery.

Dr. M. G. White, Decatur, died at the home of his son, Mr. Mark G. White, 215 West Howard St., Atlanta, August 10, 1926. He was born in Monroe County in 1838. Dr. White graduated at Tulane University of Louisiana School of Medicine, New Orleans. At the outbreak of the Civil War, he entered the medical corps of the Forty-ninth Georgia regiment and served with distinction throughout the war.

Dr. White is survived by his widow; two sons, Mark G. White, Decatur and Walker White; one brother, O. L. White, Elk City, Oklahoma; two sisters, Miss Pauline White, Elk City, Oklahoma, and Mrs. J. C. Cowles, Columbia, S. C.

Funeral services were held from the residence of his son and interment in Forsyth.

ANTITOXIN UP-TO-DATE

Ever since the discovery of diphtheria antitoxin, biological manufacturers have been endeavoring to overcome certain difficulties associated with its use. One of these, the bulk of the effective dose, has been disposed of by elimination of the water and other non-essential elements, until a product approaching a state of absolute purity has resulted. The best anti-toxin, while small in bulk, is sufficiently fluid to ensure prompt absorption and consequently prompt therapeutic effect.

Another difficulty has been that the rubber of the plunger in the syringe packages in which all antitoxins are supplied is very apt to become adherent to the glass barrel of the syringe, and physicians have had no end of trouble in trying to break the adhesions without breaking the syringe.

Parke, Davis & Co., as will be noted by reference to their advertisement elsewhere in this issue, offer not only a highly concentrated antitoxin with low protein content, but an "improved" syringe package. We understand that the improvement consists principally in an ingenious reduction of the area of contact surface between the plunger and the syringe barrel, so that by giving the piston rod a gentle turn the plunger can be rotated and then, of course, moved forward under steady pressure.

Treatment of Multiple Sclerosis. E. Siemerling. Therapie der Gegenwart No. 3. 1926.

The author considers multiple sclerosis a spirochaetal affection and for its treatment gives preference to Silversalvarsan combined with calcium chlorate. It has been demonstrated statistically that this method of treatment proves more successful than any other, even though the total result leaves much to be desired.

HOUSE OF DELEGATES

(Continued from page 367)

REPORTS OF FRATERNAL DELEGATES TO OTHER STATE MEETINGS

Dr. George L. Touchton, Savannah: I was one of the delegates appointed to attend the Florida meeting, and Dr. Minchew and I were there. They had a good program and splendid entertainment. I am sure that anyone who has an opportunity to attend the Florida

meeting will find it well worth while.

Dr. B. H. Minchew, Wavercross: Our own Dr. Dowman was the guest of honor in Florida this year, and was received most graciously. I agree with everything Dr. Touchton has said, but think there is no reason for moving from Georgia if one has a good practice and enjoys the confidence of his community.

Dr. H. L. Erwin, Dalton, said that he had been appointed to visit the Tennessee State meeting but was unable to do so because it conflicted with the meeting of the Georgia Association.

Dr. C. L. Ayres, Toccoa, stated that he was appointed to attend the meeting of the North Carolina Medical Association and expected to do so when they met in June, and would bring in his report next year.

Neither of the delegates to the Alabama meeting were present at this time, nor were those appointed to visit the meeting of the South Carolina Medical Association.

The President: We have been notified that the American Medical Association has a model constitution and by-laws for State associations. I think it might be well to have a committee appointed to consider this model and report at the next meeting.

Dr. Miller moved that Dr. Boland, Dr. Clark and Dr. Bunce be appointed a committee to study this matter and report back at the 1927 meeting.

Motion seconded and carried.

Dr. Harvard announced that there would be a meeting of the Council immediately after the adjournment of the House of Delegates.

The President: Is there any further business to be considered at this time? If not, a motion to adjourn is in order.

On motion of Dr. Thrash, seconded by Dr. Head, the House of Delegates adjourned at 9:00 A.M., *sine die*.

ALLEN H. BUNCE,
Secretary.

WHOLESONE HOME LIFE INSPIRES ARTISTS

The life of the mother and child in the real home has appealed to great artists of every age and country, according to Catherine Beach Ely writing in *Hygeia* for September. The healthy atmosphere of the normal home in which the mother personally supervises every detail of the care of her child's body and mind has furnished themes for many of the world's famous pictures.

To the members of the County Medical Societies:

Dear Doctor:

Your secretary has received a supply of manuals on "Periodic Health Examinations." These manuals have been revised and contain the best and latest instruction on how to make a thorough physical examination.

Your president, Doctor V. O. Harvard, is including this topic in his year's program and he deserves the co-operation of every member of the association in making the laymen realize the importance of an annual physical examination by their medical advisors.

Apply to your secretary for a copy of this manual and get acquainted with its contents. After reading it you will agree that it is the best thing of its kind.

Get this idea over by talks to lay associations and through articles in the press. As a suggestion call it, "A Birthday Physical Examination."

Faternally,

Committee on Health & Public Instruction.

J. A. THRASH, Chairman,

H. B. NEAGLE,

THEODORE TOEPEL,

V. O. HARVARD, President,

ALLEN H. BUNCE, Sec.-Treas.

BODY BURNS FOOD WITH PRODUCTION OF HEAT

The food we eat is actually burned inside our body by the oxygen we breathe, writes Katherine Blunt in *Hygeia* for September. This burning gives out heat, just as a fire does, and also produces energy. The process by which food is burned by oxygen to form energy and tissue is called metabolism.

If there is not enough food to feed the fire, the oxygen burns the body substance and weight is lost. This is the case in certain disease conditions. Sometimes the fire burns more quickly than at other times. In order to measure how fast the fire is burning and how much energy is being produced, we measure the amount of heat produced and the oxygen used up.

The amount of heat produced when a person is lying quietly without food is the basal metabolism. The basal metabolism of children is higher than that of grown people. That is why children eat much more food.

MENTAL HOSPITALS ARE MISJUDGED BY PUBLIC

Every hospital for mental disease bears a wholly undeserved reputation for being reluctant to release its patients, says Dr. L. D. Hubbard in the September *Hygeia*.

As a matter of fact, these hospitals are almost all overcrowded and under-staffed, and the release of each patient brings a feeling of thankfulness to those in authority both for the patient's sake and for that of the overburdened wards.

In considering the figures for admissions and discharges from such an institution during the year, many circumstances must be taken into account. In the first place about one-fifth of the patients admitted may be over 60 years old. The mortality in such a group is naturally high, especially when many of them are suffering from organic brain disease as is usually the case with mental patients of this age.

Influenza and pneumonia, to which aged people are very susceptible, takes the lives of persons, whether inmates of a mental hospital or not. Furthermore, mental illness is prolonged and convalescence slow, so that a number of patients admitted in any year will recover, but not necessarily in that same year.

WOMAN'S AUXILIARY TO FULTON COUNTY MEDICAL SOCIETY MEET

(Continued from page 370)

The president discussed "Hygeia," a magazine published by the American Medical Association for the dissemination of correct information pertaining to health, full of enthusiasm over the extended distribution of this magazine.

The importance of the trust fund which is used to assist worthy medical students, and the need for increasing this fund was stressed. Officers installed at this meeting included the following prominent women:

Executive board: Mrs. Allen H. Bunce, president; Mrs. James N. Brawner, first vice-president; Mrs. Willis Ragan, second vice-president; Mrs. Charles E. Waits, third vice-president; Mrs. O. H. Matthews, recording secretary; Mrs. Ed. H. Greene, corresponding secretary; Mrs. G. M. Niles, treasurer; Mrs. J. E. Sommerfield, parliamentarian.

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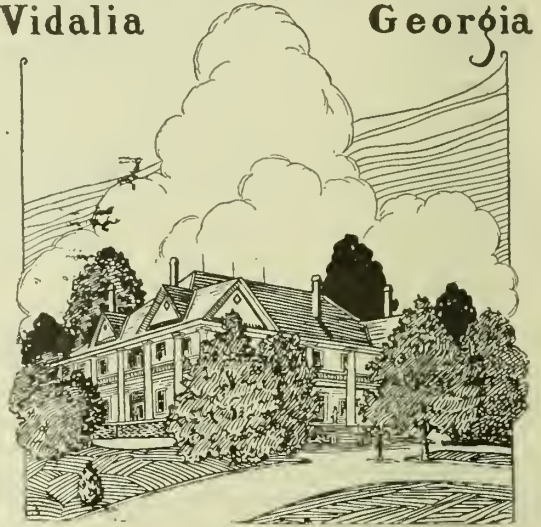
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Original Articles

FEEDING THE NORMAL INFANT*

R. GEO. MCALILEY, M.D.

Atlanta

"Liberality, broadness of vision, and respect for the opinions of others are essential in medicine; in no branch of medicine are these qualities more essential than in infant feeding." (*Hill.*)

Conservatism is a worthy quality, but in infant feeding it has sometimes proved detrimental. We are aware today that the restricted milk and cereal diets of the past, prolonged often for one or two years, have resulted in many cases of deficiency diseases, such as rickets, scurvy, anemia. Recent literature on the diet of infants is replete with a variety of doctrines. Our present opinions are in a constant state of flux; the ideas held today are subject to change tomorrow. It behooves us to receive new reports with open minds, to cull from the mass of material those methods which appear to be the best, and to apply them with discrimination. We must approach the problem of infant feeding with common sense and a liberal viewpoint.

Our objective is the choice of a diet which will promote normal development, without producing digestive disturbance or pathological changes. It is necessary to have a thorough understanding of the requirements of the infant, and of the foods best suited to supply these requirements, before we can be dogmatic about what the baby ought to eat.

Finkelstein has compared the human infant to a plant, because its first need is a generous water supply. To maintain nitrogen balance and to supply building material, protein is required. To meet the demands of living and growing, the baby must have fuel which yields the requisite energy. His diet must also furnish him with vitamins and minerals.

There are many foods which meet one or more of these requirements. A knowledge of their constituents is essential. On this basis, we may formulate certain fundamental rules for infant feeding. But these rules must be flexible and adaptable to the varying needs of different infants. It is impossible to feed successfully from set cards containing fixed formulae for babies of different ages. Every baby is an individual, and should be studied as such to determine his tolerance to various foods. If we know what foods are best for most normal babies, we will have a foundation upon which to build. Milk is the basis of the child's diet for the first six to eight months. The best and safest diet for the young infant is generally conceded to be mother's milk. Infant mortality is about seven times as great among artificially fed infants as among breast fed infants. In addition, breast milk conveys some immunity to infection, as is evidenced by the far greater occurrence of certain infectious diseases among bottle babies. But the quality of milk depends on the diet of the mother; if her diet is inadequate, her milk will be deficient. For this reason, it is advisable to give cod-liver oil and orange juice to the breast fed baby, after his sixth month.

Difficulties may be encountered in keeping

*Read before the Medical Association of Georgia, Albany, Ga., May 12, 1926.

the baby on breast milk. While most mothers are willing to nurse their children, occasionally one refuses, because she does not wish to sacrifice the time from social duties or necessary employment. In some cases the difficulty may be a physical one, such as inverted or depressed nipples of the mother, or inability to learn to suckle on the part of the infant. The mother may have an inadequate supply of milk, because of indigestion or neurasthenia.

In certain conditions breast feeding is contraindicated. Tuberculosis in the mother, whether latent or active, may be hastened in its progress and at the same time the infant may be exposed to infection. Acute infectious diseases like typhoid fever or pneumonia, nephritis, severe hemorrhage, puerperal convulsions or septicemia complicating delivery are also contraindications. The mother may be able to nurse after recovering from severe hemorrhage or sepsis, but there is great danger to the baby in nursing after recovery from eclampsia. It is advisable to wean the baby in any chronic wasting disease, as cancer, hyperthyroidism, decompensated heart disease, or chronic nephritis.

It is usually best to continue breast feeding, when possible, at least to the age of nine months. But each case must be decided individually. Breast feeding is far more important to a very young or delicate infant, or one who is underweight or suffering from some illness, than to a robust baby several months old. It is more difficult to begin artificial feeding in hot weather than in cool weather. Each case must be decided on its own merits; the needs of the baby must be balanced against the objections of the mother. It is incumbent upon the physician to do everything in his power to continue breast feeding, if the situation requires it. Many adjustments may be necessary both on the part of the mother and the baby before satisfactory nursing is established.

In most cases little attention has been given to the mother's diet. It is doubly essential for her to eat the right food at this time, as otherwise Nature will sacrifice her tissues in an unsuccessful effort to supply the baby. The diet should be adequate with respect to

calories, protein, minerals (especially calcium, phosphorus and iron), vitamins and water. Milk, eggs, soups, vegetables and fruit should be given liberally. Particular attention should be given to prevent a hyper-acid condition in the mother. If the acidity of her urine is too high, she should be given an alkali until her urine becomes neutral to litmus paper. I have recently had four cases of frequent, acid, undigested stools, in infants three to five weeks old, which were all due to a hyper-acid condition in the mother, and were relieved by prescribing an alkali and suitable diet for her.

The mother should follow the other rules of hygiene, such as sufficient exercise, adequate rest, and freedom from worry. Mental states may affect her milk; fits of anger or sudden emotion may cause a temporary cessation or a reduced secretion. Such occurrences should be prevented. These mothers should be reminded of the familiar slogan that satisfactory milk comes from contented cows.

The baby should be nursed at regular times. The intervals between nursing should never be less than three hours; it is our custom to advise the three-hour interval for the first three months, except for the unusually well-nourished babies who are perfectly satisfied to go four hours. After the third month the four-hour feeding is preferable, five feedings in twenty-four hours.

Complemental feeding may be necessary in some cases. If properly carried out, it may help to tide the baby over a period of reduced breast milk, until an increase begins, and it serves as a stepping stone to complete bottle feeding.

Failure to gain in the normal breast fed baby after the second week usually means that it is not getting sufficient food. It requires at least two ounces of breast milk per pound of body weight per day. This can be determined by weighing before and after nursing for several days. One weighing is not sufficient. Breast milk may be increased by nursing both breasts at regular intervals, followed by manual expression of the remaining milk. If this method is tried, many of the misjudged colics will be found due to

hunger. In some cases, the nursing must be followed by a complementary feeding sufficient to satisfy the baby's normal requirements. Every infant should be taught to take the bottle. An occasional feeding serves the double purpose of making nursing less burdensome and weaning much easier.

Total loss of breast milk makes artificial feeding necessary. The formula for this is based on the baby's needs as outlined at the beginning of this paper. The required protein is supplied by $1\frac{1}{2}$ ounces of milk for every pound of body weight. The baby will need 45 calories per pound of body weight, sometimes more. The younger the infant, the higher will be his caloric need. From the sixth to the ninth month, 40 calories is usually sufficient. If the milk allowed by the formula does not supply the requisite calories, they can be added in the form of sugar. The milk contains all the fat he needs, and usually this amount is well digested. Liberal fluids are important, especially for a young infant. The daily formula should contain at least three ounces of fluid per pound of body weight in the early months, and two ounces in the later months, provided the total does not exceed 40 ounces. The diluent may be plain water, oatmeal or barley water. There is no scientific or practical reason for the addition of alkalis such as sodium bicarbonate or lime water to the food.

An example of a formula worked out on this basis is as follows: baby one month, weight eight pounds.

Milk, $8 \times 1\frac{1}{2} = 12$ ounces.

Caloric needs, $8 \times 45 = 360$ calories.

Calories in milk, $12 \times 20 = 240$ calories.

Calories to be furnished by sugar, $360 - 240 = 120$.

One ounce of sugar will furnish 120 calories.

Fluid, $8 \times 3 = 24$ ounces.

Diluent, $24 - 12 = 12$ ounces.

Formula: Milk 12 ounces.

Sugar 1 ounce.

Diluent 12 ounces.

The milk should be boiled three to five minutes, to sterilize it and to render it more digestible. This will unfortunately destroy some of the vitamins, especially C. After

boiling, the milk should be put into the required number of bottles, six if the baby is fed every four hours, and seven if he is fed every three hours. The bottles should be covered and kept on ice, warming them one at a time as needed.

The carbohydrate may be milk sugar, cane sugar, dextro-maltose or Karo syrup.

Vitamins are essential to normal development. Good milk contains all three vitamins, but many experiments have conclusively proved that this depends on the cow's diet during lactation. Boiling further reduces the vitamin content. Therefore, orange juice and cod-liver oil are added, to supply these, and to promote normal growth. When orange juice is not available, tomato juice or the water in which potatoes have been boiled, can be effectively used. One-half teaspoon daily of orange juice may be given at birth, and gradually increased to two teaspoonfuls at one month. Since we do not know the exact potency of cod-liver oil against rickets, the dosage is to a large extent empirical. Eliot and Jackson, of New Haven, advocate giving from one to one and one-half teaspoons of cod-liver oil daily by the end of the first month, and two to three teaspoons by the end of the second month. Sunlight is a potent antirachitic factor. In summer cod-liver oil may be discontinued.

The minerals are also important. Calcium and phosphorus are supplied adequately by the milk and orange juice, and cod-liver oil promotes the assimilation of them. Both breast and cow's milk are very deficient in iron, however, and orange juice does not supply this lack. Nature compensates for the deficiency by endowing the baby at birth with enough reserve iron in his system to tide him over the greater part of the first year. For this reason it is important that the pregnant mother eat foods rich in iron. But after the age of six months to nine months, if he is kept on a diet deficient in iron, he will become anemic. This is demonstrated by the intractable anemias which appear in children kept exclusively on a breast milk or cow's milk diet from one to two years. In order to supply the necessary iron, eggs, spinach, other vegetables, stewed fruits, beef or beef juice,

are added, gradually to the infant's diet after he is six months old, whether he is breast fed or bottle fed.

If the baby continues in good health, without gastro-intestinal upsets, on the diet of cow's milk modified in accordance with the formula given above, if he seems satisfied and not hungry after feeding, if his weight shows normal gain, then we may conclude that his diet is satisfactory. His formula may be increased according to his gain in weight.

If fresh cow's milk fails to agree with the baby, other foods must be tried. The dried milks are usually well assimilated. Their use is preferable when ice cannot be obtained for fresh milk. The powdered form is fed in accordance with the infant's caloric needs.

Probably the greatest addition to infant feeding in the last few years has been lactic acid milk and Karo syrup. This may be given in accordance with the formula outlined above, or it may be given in concentrated form. A detailed description of the method used is given by Marriott and Davidson in the *Journal of the American Medical Association*, Vol. 81, page 2007, December 15, 1923.

SUMMARY

1. The problem of infant feeding should be approached with common sense and a liberal viewpoint.

2. The objective is the choice of a diet which will promote normal development, without producing digestive disturbance or pathological changes.

3. The best diet is breast milk.

4. It is essential that the mother eat an adequate diet to produce good milk.

5. Artificial formulae are based on caloric need, protein, and fluid requirement. Vitamins and minerals must be added when necessary.

DISCUSSION ON PAPER OF DR. McALILEY

Dr. R. L. Miller, Waynesboro: I wish to congratulate Dr. McAliley on this most excellent paper. He has thoroughly covered in a short time the problem of infant feeding. I agree with him that we can lay down no fixed rule for feeding an infant. This brings to mind an incident that occurred in Augusta,

at the time of the meeting of the State Examining Board several years ago. One of the questions was to "give the best treatment for syphilis." One of the answers was, "I do not treat syphilis. I treat the patient." This should be true in feeding a child, we must feed it as an individual entity. We can lay down no fixed and inflexible rule.

We cannot stress too much that the ideal infant food is mother's milk, as Dr. McAliley said, not alone because of its value as a food, but because it furnishes a certain immunity from disease. There are a few instances where the mother cannot furnish sufficient milk, and we have to resort to artificial foods. We are never justified in doing this until we are assured that the mother cannot give a sufficient amount of food. The dairy world has taught us that the udders function only as the demand is made on them, and this is true of mother's breasts. They can be made to meet almost every demand, and the supply can be increased by stripping the breasts after each nursing. Dr. McAliley also wisely emphasized the fact that contentment, rest and exercise are absolutely essential to the mother giving good milk in sufficient quality to feed the baby.

He also mentioned complementary feeding. I do not like that term. Supplemental and complementary are so nearly alike that I think it better to adopt Dr. Mulherin's suggestion of "additional feeding." That is, giving more food after the nursing, if necessary. The reason I stress this so strongly is because last summer I read a paper on "Supplemental versus Complementary Feeding," and a man in discussing the paper said he agreed with me thoroughly that a mother should be allowed to go out and take a ride in the afternoon, giving the baby one supplemental feeding, showing that he had the words absolutely confused in his mind. Dr. McAliley said this could be used as a stepping-stone to bottle feeding. I know he meant when we are ready to wean the baby, but I think we should never use such food unless the mother is not giving sufficient milk, and cannot be made to give sufficient, to keep the baby going.

Dr. Joseph Yampolsky, Atlanta: I also wish to congratulate Dr. McAliley on his paper on a subject which should be presented at least once a year. I think his paper is the A B C, the primer, of infant feeding. Too many doctors in Georgia still think that condensed milk and things of that sort are the best to feed babies. Because of that fact we find many of them absolutely ignorant of the fact that cows still give milk. Breast feeding is by all means the choice, and too many men change from this too soon because they think

the milk does not agree with the baby. If that man had a calf and a cow in that situation he would soon go and find out what was the matter. With a mother it is too easy to change to another cow. I believe that in Georgia nearly every child could be fed on the breast if we would study the mother as well as the baby. If we are treating a baby we must look after those who supply food to the baby. We want you to get some knowledge of this, and perhaps in time to come we will not do anything except what our grandmothers did, and then if it is absolutely necessary feed the baby something in addition. Too many doctors prescribe condensed milk without even knowing the formula of the milk. They just tell the patient to get a can and feed the baby according to directions. For that reason we so often have babies brought to our offices who have not had any chance to develop a proper, normal digestion.

Dr. T. B. Gay, Athens: Dr. McAliley's paper suggests several things along the preventive line. Too many doctors tell their patients to cut down on their diet while carrying the child, so that the baby will be small and the labor not difficult. That may be all right if the mother understands what a well balanced diet is so that she will get enough of the right kind of food to make milk, and a well formed body for the child.

He also mentioned the nipples. In some cases, as he said, the nipples are absolutely imbedded, so the child cannot get hold of them. A great deal can be done during the later months of pregnancy by drawing those nipples out. By using great care, washing them every night and then applying lanolin, and carefully drawing them out, many nipples can be made acceptable to the baby.

After the birth of the baby practically all mothers have a certain amount of engorgement of the breasts, and their breasts are very painful. At this time they are apt to cut down on the amount of milk they drink, as well as on other fluids and food, in order to relieve this congestion. If great care is not taken at this time to regulate the amount of nourishment before the baby begins to lose too much, and the milk supply gets too low, the mother may stop nursing the baby because she thinks she has not enough milk. Too few people realize that breast milk can be started again after it has been discontinued. Even after a period of four months it can be started to flow again, and the nursing resumed. That is applicable to Dr. McAliley's statement regarding pneumonia. We do have to stop breast feeding during the acute stage and the early stage of convalescence, but breast feeding can be resumed after the

mother has recovered.

A certain amount of care should be given the nipples before and after feeding. Nipples should always be washed with boric acid solution, or boiled water, and the baby's mouth should always be wiped off before putting to the breast. If this care is not given we are apt to lose our chance of having the mother nurse her baby, because of infected nipples, fissured nipples and skin abscesses. Unless we impress the value of this point on the mothers, educate them and explain it to them, they are apt to disregard it and think it is unnecessary, that it is only a protection to them, whereas it may mean the life of the child, through the mother's inability to nurse.

Dr. Benjamin Bashinski, Macon: I am sure we have all enjoyed Dr. McAliley's paper, but there are a few points on which I disagree.

First, in relation to weaning in tuberculosis, epilepsy, and where there is an insufficient amount or a complete loss of breast milk. Typhoid fever, I think we will all agree, is not a positive indication for weaning. I think we have all had the experience of having a mother nurse her child through an attack of typhoid, without fear of infecting the baby.

We all know that cod liver oil will prevent rickets, and this is easier to prevent than to cure. The doctor says he usually begins this treatment at six months. I think it is well to begin it at the same time we begin artificial feeding, at whatever time that is—two, three or six months. Fruit juices are excellent, as he brought out. There is a common belief among mothers that orange juice is a laxative, but it is not laxative in the least degree. It is given to furnish vitamin and prevent scurvy. As he also mentioned, strained tomato juice will do the same thing, as will grapefruit juice and prune juice and lemon juice, but the orange juice is a little more pleasant to take.

Dr. McAliley did not mention the fever that occurs so often in newborn babies. Practically all pediatricians have been called to newborn babies in the first few days because of high temperature. Generally the pediatrician or the family doctor will think of infection, or retained meconium or some such condition, because the temperature sometimes runs around 104° or 105° F. We know this is a starvation temperature due to insufficient food, and that a slight addition to the mother's milk, until it is well established will cause this high temperature to disappear within twenty-four hours, as a rule. This is an important point, to which we should all pay more attention, and I am sure we will

find the supplemental, or complemental, or additional feeding of value.

The idea prevails that boiling milk destroys all the good properties of the milk. Those of us who make a study of pediatrics know that boiling the milk prevents infections such as tuberculosis and typhoid fever, and also makes it more digestible. I think none of us will agree with the doctor who advised washing the child's mouth after nursing. I think if we attempt this we will often get a stomatitis from infection, through the fingers of the nurse or the mother.

Dr. W. A. Mulherin, Augusta: Dr. McAliley is to be commended for bringing this subject up, and particularly for his courage in doing so. Any man who brings up the subject of infant feeding has to have nerve, for every physician has his pet theory and believes his method of feeding babies to be the best one.

It is well to recognize that there is a great deal we do not know about feeding babies. The purpose of nutrition is to produce good, healthy babies that not only look healthy and well and are happy, but babies who measure up to standard physical requirements. This may be accomplished in many ways, however, I think the problem can be more successfully approached if we recognize that nature shows the proper way, by ordaining breast milk as her choice. If breast milk is not obtainable, a food containing as closely as possible the ingredients and essentials of breast milk would be a logical second choice. In composition cow's milk approaches breast milk more closely than any other food. Therefore when mother's milk is deficient in quantity or unobtainable, cow's milk modified to suit the baby's digestive organs should be used as an additional food to breast milk or in lieu of breast milk.

The one big advancement in pediatrics today is that we feed babies and do not starve them to death, because some former theory concerning infant feeding led us to do so. We give the babies plenty of nourishment. There are two leading lines of thought in connection with infant feeding: One claims that we can take cow's milk and dilute it with water, reinforce it with sugar, so as to bring it up to the caloric requirements and successfully feed babies; the other advises to give whole milk undiluted to infants, premature or newly born, or at any age. This can be done by acidifying the milk with lactic acid which neutralizes the buffer substance in cow's milk and thereby allows the hydrochloric acid of the gastric juice full swing at digestion. This method of feeding appeals to me because thereby you can give a baby

strong concentrated food and make it thrive better than by any other method of artificial feeding. In my experience this is not a temporary food as Faber of San Francisco states. I have used it as a permanent food successfully and can say it produces a well nourished baby, resembling very closely a breast fed baby.

My experience regarding colic has been very much the same as Dr. McAliley's—fully 50% of colic is due to hunger. It is surprising to see how frequently colic goes out of the window when we begin proper feeding and give the baby plenty of it.

As to the quantity of a feeding to be given a baby, it is not always advisable to stick too closely to the old ironclad rule that a baby should receive 2 ozs. more than it is old in months. The rule is a good one, but is subject to changes. For instance, if a baby should have 5 ozs. according to age, say three months, but wants six or seven, give it six or seven. In other words, do not confine yourselves too strictly to fixed rules to the detriment of the baby, as each baby has an individuality that should be respected.

Dr. R. G. McAliley, Atlanta (closing): I have very little to add. In regard to the questions on contraindications for breast feeding, I wish to emphasize the importance of treating every case individually. It cannot be said that no mother with typhoid fever should nurse her baby, or that no mother with pneumonia should nurse her baby. Each case must be decided upon its individual circumstances, with due consideration for the welfare of both mother and baby.

The essential principles of infant feeding have been emphasized in the summary. The lesson I wanted to bring to you today, is the necessity of thinking for yourself, of applying these principles in the proper way, at the proper time.

CURE OF TUBERCULOSIS BASED ON REST, AIR, FOOD

The present treatment of pulmonary tuberculosis is based on three things: fresh air, proper food and rest, the greatest being rest, says Dr. E. A. Gray in *Hygeia* for August. However, the main point in the treatment is the patient's ability to stick, to be faithful to the job.

The lungs may be rested by going to bed and staying there, which gives the lungs the least possible amount of work to do. One lung may be rested by surgical procedure or by a treatment known as artificial pneumothorax. By either of these methods, the diseased lung is collapsed or closed down on itself so that the poison in it cannot escape into the system in such large quantities.

ADENOIDS AND TONSILS IN CHILDHOOD—A PLEA FOR CONSERVATION*

A. J. WARING, M.D.

Savannah

With increasing definiteness it seems to me, the decision as to the removal of tonsils and adenoids is passing from the field of the nose and throat man to the field of the Internist or Pediatrician. This is largely due to the fact that operative decision does not rest on brief observation or inspection, however skillful, but upon diverse factors in the child's health complex, with which the medical adviser is most familiar. The decision is not quite as simple as the removal of a spur or polyp. It is by no means uncommon for the thoughtful throat specialist not to be satisfied altogether with such pathology as his examination reveals; he also demands of his conferee, who has referred the case, the reasons why he desires a tonsillectomy performed.

The somewhat unfortunate psychology of this situation, however, is the tendency on the part of the throat specialist to exercise less and less judgment on the decision of a tonsil operation. I feel quite strongly (partly because the prevalence of the operation breeds a contemptuous familiarity) that many are performed in haste and without suitable consultation as to whether or not it is the best procedure for the patient's welfare. The operation should by all means be due to the harmonious consent of the physician and throat specialist, based upon a suitable physical examination and clinical history. I disapprove of the arbitrary operation performed on my patients without consulting my opinion on the advisability of the step, and I feel equally sure that the throat specialist is justified in not accepting verbatim the opinion of the physician in charge of the child. He has an equal privilege in so far as the expression of his own opinion is concerned.

Unfortunately it is hard for the throat man to refuse an operation countenanced by the physician, and quite common for an operation to be performed not wholly advised by the physician who should know (even if he does not) more about the child in question than anybody else.

In the above premise the idea is expressed, therefore, that the decision on the operation rightly or wrongly is passing largely into the hands of the pediatrician or family physician. It behooves us, therefore, to consider soberly certain facts.

Waldeyer's ring is a circle of lymphoid tissue of which the most prominent sections are the faucial, lingual and pharyngeal masses. Lymphoid tissue is credited as a rule with certain definite protective functions in so far as cellular and secretory activity is concerned. Although the actual functions of Waldeyer's ring is largely a matter of conjecture; nevertheless the location of this peculiar tissue in the naso-pharyngeal space, one can reasonably assert is not accidental. It is certainly borne out by clinical study that countless hordes of bacteria meet stubborn opposition in so far as ingress to the body is concerned in the region of Waldeyer's ring. If the forts about a beleaguered city are captured by the enemy and the guns of those forts trained upon the unfortunate inhabitants, the more quickly the forts are destroyed the better for the city—unless a vigorous sortie from the city can place the forts once again in the hands of the defenders and train their guns upon the invading host. Hence the expression in the title of this paper "a plea for conservation." Particularly I did not say "a plea for preservation."

There are also certain clinical facts to which I would refer. In infancy and early childhood, adenoid and tonsillar tissues are apparently functioning actively. During this period the infant in its struggle for existence suffers many diseases of mucous membranes and apparently succeeds in acquiring a certain amount of immunity, for as puberty approaches, adenoid and tonsillar tissue visibly shrink in abundance, and infections of mucous membranes markedly lessen. Zahorsky

Georgia, Albany, Ga., May 12, 1926.

*Read by title before the Medical Association of

has written thoughtfully along these lines several years ago. Has the infant been fed in non-lethal doses, through the opposition of Waldeyer's ring to microbial invasion, a variety of toxins that have produced a life-preserving, partial or complete, immunity to many diseases? The supposition is a reasonable and attractive one.

If we, therefore, accept as reasonable the idea that "fighting" lymphoid tissue in the naso-pharyngeal space is a most valuable protection to future life and health, let us consider the factors that justify the removal of these important protective areas. There are of course two—obstructive and toxic. The large mass of adenoid tissue with the short upper lip; high palatal arch; deviated nasal septum; contracted jaws with faulty dentition; deformed chest; tendency to otitis media; chronic cough; chronic rhinitis; sinus disease, etc.; and the diseased tonsils, irremediably so, the seat of repeated infections; enlarged cervical glands; peritonsillar abscess; asthma; nephrosis; chorea; rheumatism; endocarditis; protracted low fever; systemic infection; anemia and malnutrition, etc. In 30% of cases, these two factors are self-evident. As a positive indication for removal should also be mentioned the diphtheria carriers although in this connection Zinger has recently called attention to the danger of removing these tonsils if the patient has a positive Schick. There is a possibility of true diphtheria following the tonsillectomy, which would be dangerously masked by the presence of the large pseudo membrane that covers the denuded post-operative field.

Kaiser in comparing the examination of 1,200 tonsillectomized children 3 years afterwards with that of 1,200 non-tonsillectomized controls made the following observations—90% of sore throats in the operated group relieved—60% in un-operated group. In operated group head-colds and otitis media less common; less scarlet fever and diphtheria. In the un-operated group there was less bronchitis and pneumonia—an observation made independently by Zahorsky in discussing a shorter series of cases. Unfortunately Kaiser made no comparison of the incidence or per-

sistence in this series of cases of articular rheumatism and endocarditis. In this connection it is a matter of great interest that although tonsillar infections in South Georgia are just as prevalent as in Northern communities, cases of articular rheumatism and endocarditis are exceedingly few—a clinical fact that has its bearing on tonsillectomy.

Ten years ago I felt I could advise a tonsillectomy promptly and with equanimity. Now I am not quite as confident. Weekly I see older children well up in weight, of good color and physique, with small and shall we say at least quiescent tonsils. One can say with reasonable assurance that adenoids and tonsils need no surgical interference; and yet many of these children I recall as the victims of stormy throat attacks in their early childhood when I strongly advised immediate excision.

I realize, of course, that some of my observations are not susceptible of proof. A throat specialist for whose skill and judgment I have great respect boldly stated that in his opinion both adenoids and tonsils were functionless masses of susceptible tissue, that rapidly became deadly foci of infection and that the only justification for their existence was the provision of an all-wise Providence who in this fashion provided the younger specialist with operative experience, and the older specialists with hard cash.

As a matter of fact histologically the tonsil resembles the ordinary lymph node whose active function is accepted without question. The tonsils are formed in about the fourth month of intrauterine life from migrating masses of white cells passing from the vessels in the stroma of the mucosa. They contain solid nests of lymphoid cells the centers of which show active mitosis. In addition the close connection by lymphatic channel with the glands of the throat, if one thinks physiologically, is probably not an unfortunate mistake on nature's part to expedite the passage of toxic material into the glandular system.

Passing on to another phase of the question I believe with Brenneman that we should separate adenoids and tonsils in a consideration

of their pathology, and not link them together as though they constituted a hyphenated word. He believes that adenoids are probably functionless, and can with little operative risk be excised early, to great advantage. The tonsils he considers functional organs not the atrium of infection in young children, and especially not in infants; and finally asks the pertinent question: Does removal prevent infection? In general I agree with his observations and feel that not infrequently my judgment has been good in advising adenoidectomy and preserving the tonsils.

In this discussion I have purposely avoided a description of operative risks and the possible damage to throat architecture and phonation; nevertheless, I wish to emphasize the following points: As a matter of medical conscience operative risks should be minimized; therefore, the little patient is entitled to a reasonably accurate general examination with particular emphasis placed on the condition of the heart, lungs, and kidneys; a coagulation time should be taken; a hemoglobin reading made; an X-ray picture taken for thymic shadows; and possibly in the light of Zingher's warning already referred to, a throat culture taken for diphtheria bacilli. If diphtheria bacilli are present the patient should be made Schick negative before operation. Have I asked too much as a pre-operative study of the patient? I do not think so and yet I believe few patients receive this comprehensive investigation before tonsillectomy. In conclusion I present this summary:

(A) The adenoids may have, the tonsils probably have a definite function.

(B) Omitting the obvious cases over which there can be no disagreement, each case should therefore be studied conjointly by physician and specialist, and the merits of the operation carefully considered.

(C) The question of adenoidectomy and tonsillectomy should not be considered conjointly but separately for the pathology is not always the same, the operative risk equal, or the need for excision identical.

(d) Pre-operative study of the patient's condition to diminish the risk of fatality is not always comprehensive but certainly should be.

TOXIN-ANTITOXIN*

BENJAMIN BASHINSKI, M.D.

Macon

The knowledge of the development of antitoxin in the bodies of animals injected with diphtheria toxin is now a most established fact.

According to Park, who has done such great work in giving us improved toxin-antitoxin, the earliest knowledge that injections of toxin almost neutralized by antitoxin are capable of stimulating in animals the production of antitoxin, came quite accidentally. Park states that the testing of the potency of the drawings of the serum from the various horses under treatment is likely to leave a certain proportion of the test animals alive because of their having received subcutaneously toxin with an overneutralizing amount of antitoxin. The attempt to use these treated guinea pigs several months later revealed the fact that many of the animals were immune, and that the immunity did not develop to any great extent until a lapse of from four to six weeks.

Before the immunization by toxin-antitoxin in the city of New York the morbidity rate had not decreased and according to statistics the mortality in 1917 was 12.8 and in 1921 16.8.

It is a general fact that at some time most parents expect their children to contract one or more of the common diseases of childhood as measles, mumps, whooping cough, chicken pox, etc., and they do not seem to be very concerned about these, but all of them fear diphtheria and scarlet fever and both of these may be prevented, but we can't say this about the other diseases, with the exception of typhoid fever and small pox.

The art of medicine is today turning to the preventive side, and I am sure all of us are vitally interested in preventive medicine. It is an undisputed fact that we have and are still controlling typhoid fever, small pox and, to a great degree, diphtheria. The control of

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scarlet fever is now only a short distance away. Even now, we have the serum that in an ordinary case will control the disease within seventy-two hours.

According to C. E. A. Winslow "a quarter of a century after the discovery of diphtheria antitoxin the fruits of that discovery are not fully garnered. We possess a more complete power over diphtheria than in the case of any other communicable disease. We can detect the incipient case and the carrier. We can measure natural immunity by the Shick test. We can produce passive immunity by the use of antitoxin and active immunity by the use of toxin-antitoxin mixtures. Every measure which could be needed to fight this enemy is in our hands, yet diphtheria continues to occupy third place among the communicable diseases and kills eleven or twelve thousand persons in the registrative area each year."

It is a very peculiar fact that the morbidity of diphtheria in the United States until the use of toxin-antitoxin, had shown only a very little decline. The Government statistics show that there were over 200,000 cases every year and over 15,000 deaths. This can be reduced much, and such a great number of cases per year can be prevented and will be prevented in a few years.

Even after an apparent recovery, that is when all clinical symptoms have disappeared, we are confronted with an enormous number of post-diphtheretic paralysis.

The majority of parents have an idea that when the tonsils and adenoids are removed that the boy or girl will never contract diphtheria not knowing, of course, that only the mildest location of the disease has been removed. All of us are aware that the nasal and laryngeal types are the most resistant and, too, the most dangerous type of the disease. The specialist on eye, ear, nose and throat can tell us of the seriousness of diphtheretic otitis.

To combat diphtheria, we must first gain public confidence and also the utmost confidence in the medical profession. This should be the first step and this can be gained by the physician interesting himself in this remarkable gift to humanity and, too, through talks

to the different organizations, particularly Parent-Teachers and Pre-School organizations.

I want to quote a paragraph from an article by Doctor Matthias Nicoll, Jr., appearing in the Journal of November 14th. "Today the American people as a whole, when the value of rules and regulations affecting public and personal health habits have been convincingly demonstrated, show remarkable willingness to comply with their provisions even though such compliance may entail a good deal of discomfort and, infrequently physical and mental suffering. There are no other countries in which the most autocratic powers of constituted health authorities are so generally upheld by the higher courts and sustained by the force of enlightened public opinion. That a noisy and troublesome minority is to be found in practically every community which, through ignorance, malice, or alleged personal conviction, is with difficulty made to comply with well established and fundamental principles underlying the preservation and promotion of public health is a matter for regret but by no means for discouragement."

Several years ago, we had the misfortune to obtain some toxin-antitoxin, due to the improper preparation of the mixture, that proved disastrous. This threw a damper on the administration for awhile, but it has never happened again.

Excessive low temperature will cause the mixture to become toxic, the toxicity being due to the dissociation of the toxin from the mixture. Due to this, the mixture should never be placed in the ice chamber but placed in the bottom of the refrigerator.

At times, we get a slight local reaction but this can be prevented by giving the mixture deep into the muscle. It should never be given subcutaneously.

Much has been written about the Shick test. Zinger has shown that there is such a high percentage of positive Shick reactors among very young children, especially the pre-school age, that this procedure is unnecessary and therefore it is wise to give toxin-antitoxin without the preliminary Shick test. Then too, we would have to wait for at least

two weeks after the Shick before giving toxin-antitoxin, because of the chance of a very severe local reaction if given before this time.

Until we were given toxin-antitoxin we were accustomed to give 1,000 to 1,500 units of antitoxin as an immunizing dose to every child who had an exposure to diphtheria. Antitoxin does not fill any of the requirements of the ideal prophylactic. Investigators have shown that there is a very brief immunity conferred, which only protects the child from ten to twenty-one days, and reinjection at the end of that time only continues the immunity but for only six to seven days. So owing to this brief immunity, it fails to completely eradicate the disease.

There is an economic disadvantage of expense, which may be a matter of secondary concern to an individual, but is very important to institutions and boards of health, that deal with large numbers. Scientific investigators have shown that this amount only lasts for 16 to 21 days and should the patient develop diphtheria later, we would have the danger of anaphylaxis; as we know, the danger of anaphylaxis will follow the administration of the second dose of antitoxin if given 14 days after the original dose. Records show a number of deaths from this cause.

It is our duty as physicians to protect all children against diphtheria, and it can be done by the use of toxin-antitoxin. We should strive to immunize all children from 6 months to 6 years of age, as children at this age show a greater susceptibility than children who are older; and, too, children of this age show less reaction than older children.

Investigation has shown that complete immunity takes place in from 8 to 12 weeks after the administration of the last dose, but a few claim that one year must elapse before immunity has become complete. This can be determined by doing a Shick test at the end of 12 weeks and again at the end of one year.

By immunizing the pre-school child we will prevent epidemics in the schools and institutions. I am delighted to say that we have had a most hearty response and co-operation in our city with the physicians and especially the mothers due, I am sure, to the pleadings of some of our physicians and especially our

Board of Health. Doctor Ridley has been an enthusiastic supporter and booster for toxin-antitoxin.

I have heard it stated on several occasions that if toxin-antitoxin were given and the child should develop diphtheria during the time of administration or shortly after that it would be dangerous to give antitoxin. I can answer that it would be safe as I have had this to occur in four patients, one the child of one of our physicians, the disease being contracted after administration of the second dose.

Records of our Board of Health show that in 1924 we gave 5,500 doses of toxin-antitoxin and at the writing of this paper, in 1925, over 3,500 doses. The records also show that there has not been one single disastrous result, nor even a severe local or constitutional reaction. Not one single decided upset. It is much milder than typhoid vaccine.

Dr. Zinger states that in over 100,000 injections of toxin-antitoxin in New York children, there has not been a single serious result or a single infection.

The mortality record of Macon and Bibb County is still more impressive. Let us look at the records beginning in 1922 when we had 63 cases and 15 deaths, in 1923, 36 cases and 2 deaths, in 1924, 49 city cases, 13 country cases and 1 death, in 1925, 33 city cases, 9 country cases, 3 non-resident cases and 1 death. As you can see, a most marked reduction in the mortality.

Another very impressive thing lies in the fact that up to the present time not one single case has developed in a child that has been immunized with toxin-antitoxin.

In one family in which there were three children, a case of diphtheria developed. The other two children had been given toxin-antitoxin over six months previous, the patient being of pre-school age and had never had the mixture. One was a bed fellow. Neither this one nor the other developed diphtheria. Repeated culture proved that neither had the infection.

Another point in favor of toxin-antitoxin. As stated, children of pre-school age or from 6 months to 6 years of age are most susceptible. Records show that we have more re-

peaters in the first grade of school than at any other time. Board of Health regulations insist that children in a home where diphtheria has developed must remain from school until two negative cultures are obtained from the patient. The administration of toxin-antitoxin will enable the children to continue their studies without interruption should a case of diphtheria develop in the home.

Dr. Edward L. Bauer and H. B. Wilmer of Philadelphia have given us some remarkable and very important data as to toxin-antitoxin in asthmatic children.

Fifteen children, suffering from asthma due to horse protein sensitivity, were given the full course of treatment with toxin-antitoxin, and their reaction differed in no wise from the reaction of those who were absolutely well. No effort was made to desensitize them before treatment was carried out. One hundred and fifty thousand children, the majority fully immunized with toxin-antitoxin, have been under the observation of Dr. Bauer for a period of one to five years and none have given any marked reaction to toxin-antitoxin administration or have shown any tendency to protein sensitivity by test six months after the injection.

This should convince us that it is safe to give toxin-antitoxin to asthmatic children known to be susceptible to diphtheria.

We believe toxin-antitoxin to be a lasting and permanent immunity against diphtheria. Records for 25 years have proved this. Three doses of 1 cc. each are given at intervals of five to six days. The dosage is the same for individuals from one year to adult life. If it is desired to immunize infants under one year of age, one-half dose may be given.

Toxin-antitoxin should not be administered within two weeks after an injection of antitoxin; otherwise the toxin is slightly over-neutralized and the development of antitoxin is lessened.

Immunization with toxin-antitoxin mixture is especially useful to the following:

(1) All children from six months to six years of age, as during this age period susceptibility to diphtheria, as well as the mortality, is greatest. This group can be reached

in homes, infant asylums, milk stations, day nurseries, kindergartens, orphan asylums.

(2) School children of six to nineteen years of age. Even though the susceptibility as well as the greatest mortality occurs in children under six years of age, yet these children probably are not brought primarily into contact with diphtheria at its source. School children, on the other hand, usually come into contact with diphtheria each year and carry the infection home.

(3) Adults who come into contact with diphtheria and are constantly exposed to the infection, especially physicians, nurses and hospital attendants.

I take this opportunity to beg of you in the strongest of terms we should preach and give toxin-antitoxin and insist upon every child under our care being immunized. By doing so, we will see diphtheria just as seldom as we see smallpox today.

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DISCUSSION ON PAPER OF DR. BASHINSKI

Dr. W. L. Funkhouser, Atlanta: This has been a very interesting paper, and from our experience with toxin-antitoxin we know we are safe in advising it as a preventative for diphtheria. It is embarrassing to give toxin-antitoxin and then within a few weeks have the child develop diphtheria; the mother always believes that we gave the child diphtheria. Zingher has demonstrated that there is a period during the formation of immune bodies when the child is more susceptible to the development of diphtheria than if it had not been given; it is therefore my custom never to advise its administration during an epidemic, or at a prevalent season. Since I have followed this plan I have not had a child develop diphtheria during the period of immunity production.

Dr. J. M. Poer, West Point: Several years ago Dr. Horsley introduced a resolution that all children entering school must be vaccinated against smallpox. Since then we have never had any fright about children developing smallpox. Using this as a basis, I introduced last summer a resolution that no child should enter the first or second grades who had not had toxin-antitoxin. We insisted on

that, and it brought the attention of the mothers to the wonderful remedy. The children were given this toxin-antitoxin during the summer. I think this is a wise provision. Mothers and fathers will follow this rule. They will not keep the children out of school, and within a few years all the children in a community will be rendered immune. Then they will come and say, "If the children get this at six years, why not give it to my baby?" They are beginning now not to wait until school age, but are having it given to infants. So far as I know ours is the only school in Georgia which requires that toxin-antitoxin must be given before entering the first and second grades. Try this when you go home, and I think it will work well, especially if you have not a board of health. Make vaccination against smallpox and the taking of toxin-antitoxin compulsory on entering your schools.

Dr. Linton Gerdine, Athens: I think Dr. Bashinski did us a great service in calling to our attention the simplicity of giving toxin-antitoxin. I know one of the first things the mothers always ask is, "Will it make the baby sick?" or "How much trouble will it cause them?" I am very glad he brought out that with the toxin-antitoxin we rarely get the slightest reaction of any kind. It is one of the most simple of the vaccines, and for that reason every doctor should be perfectly willing to give it, and every parent to have it given.

Dr. Bashinski also brought out the point that in the young children there is no need of doing the Schick test. This test is apt to be a little disturbing to the young child, but when you realize that it can be done away with in these infants, and that giving toxin-antitoxin is a very simple procedure, I think you will all feel that it is well worth while. It can be checked up by the Schick test later.

Dr. T. F. Abercrombie, Atlanta: I am much interested in this subject, and am thankful to Dr. Bashinski for bringing it to our attention. I think we can say without question that the work already done in the state is reflected in the mortality statistics. Some years ago we had between 400 and 500 deaths every year from diphtheria, while last year we had less than 300. If more boards of education would do as they have in West Point we could solve the problem of diphtheria.

Dr. J. W. Chambliss, Americus: I enjoyed the doctor's paper very much. I have been giving the toxin-antitoxin for about a year and a half. We find that one of the principal troubles is that if we rely upon the local board of health to institute such proceedings they

are opposed, as they are farmers or something else.

It has been brought out that it is best not to give the toxin-antitoxin during an epidemic, but the parents think this is the time it is needed most. This is where the physician must take the step in letting the people know that this is not the time, and that it should be given when no epidemic is occurring. When there is diphtheria they rush for the toxin-antitoxin, and we tell them it is best not to give it at that particular time. Then when the scare subsides they do not come back, but we can educate them if we persist, and if we impress it upon the mothers of pre-school children I believe they will soon have them cared for.

Dr. J. P. Bowdoin, Atlanta: There are two reasons why we still have diphtheria: one is indifference, the other ignorance. If the parents are educated—informed, they will have the toxin-antitoxin given. We have been much interested in seeing this done. The physicians should and must be the teachers. The cost of the material is small, only fifteen cents a dose. We have been trying to find funds to furnish this remedy free, and have pleaded with tears in our eyes to the Georgia Legislature for enough money to get toxin-antitoxin for the children of our state—in vain. Now we are trying to get enough money on the outside to enable us to offer free toxin-antitoxin to at least a limited number of the children of our state. We think it will be done.

Dr. R. L. Miller, Waynesboro: I also wish to congratulate Dr. Bashinski on his excellent paper. When I asked him to present it I knew what I would get for it: sold, as I am, 100 per cent on toxin-antitoxin.

I was glad he brought out the point about using the toxin-antitoxin during the summer months rather than during an epidemic. Many of you will be disappointed if you use it during the winter months, and particularly during an epidemic. I adopted the rule several years ago, after a long distance consultation over the 'phone with Dr. Bowdoin of insisting that every mother should have her child given toxin-antitoxin before they take it from the breast. Since I have done this I have had only one case of diphtheria develop among my clientele, and that was in a child for whom we had overlooked the giving of toxin-antitoxin.

Dr. Benjamin Bashinski, Macon, (closing): I certainly appreciate the discussion my paper received. I am sure we can all succeed in giving toxin-antitoxin to children under our care if we will only call the attention of the parents to its great value. Some of us are afraid of it. I know this, for physicians have come

up and told me that they are afraid to use it. As I stated in my paper, it is absolutely harmless. We have in Bibb County the names and addresses of over eleven thousand children that we have immunized in Macon and Bibb County, with toxin-antitoxin. As I stated, we have not had a local or a constitutional reaction, and I feel sure that within two years we will be successful in immunizing every child of pre-school age in the county. The mothers are our best advertisers, and are now advising everyone to have this done.

Another point is the removal of the tonsils. Most mothers have an idea that when the tonsils are removed the source of infection is gone. If we would take the trouble to explain the various kinds of diphtherial infection, I am sure we would have no difficulty in getting them to have the toxin-antitoxin administered. In the smaller communities, where there is no laboratory, doctors often take a smear and send it to the nearest laboratory, and then wait until the report comes back before giving the antitoxin. Now many of you know that it is best to first give the antitoxin, and then take the smear, but this would be unnecessary if you would give the toxin-antitoxin. If you will all do this, and educate the mothers properly, we can very soon eliminate all diphtheria from Georgia.

A PLEA FOR A MORE EXACT DIAGNOSIS; REPORT OF 100 CASES*

R. C. MADDOX, M.D.

Rome

The idea that the practice of pediatrics is almost entirely limited to "upset stomachs" seems to be very prevalent both among the laity and the medical profession generally. Recently a fellow practitioner and a close personal friend said to me, "If it were possible for all children to be fed correctly you baby specialists would have to go out of business." This remark prompted me to investigate my records to see if such would be the case. In this investigation I have taken the records of the first 100 children, who collectively present 117 primary conditions. In other words I have treated 17 of these children for a second illness which had no relation to the cause of

the original visit, and which occurred at a later date. Conditions arising as complications of the primary illness have not been counted.

In this series of cases the youngest child was 24 hours old, the oldest 14 years. I did not compute the average age but would guess it to be about 4 years. Under the heading of "Gastric disturbance" I have included artificial feeding of infants and every other condition pertaining to faulty digestion, except Rickets, which for obvious reasons has been classed as a separate disease. The method employed in arriving at a diagnosis was largely confined to clinical evidence, the history, symptoms, physical examination, and the clinical progress of the case, which, of course, means considerable error in the conclusions.

The list of diagnoses is as follows:

Asthma	3
Dysentery	19
Pyelitis	5
Diphtheria	3
Scarlet Fever	2
Gastric Disturbance	27
Retention of Urine	1
(Adherent Prepuce)	
Heart Disease	7
Rickets	5
Otitis Media	3
Respiratory Infection	17
Syphilis (Congenital)	2
Typhoid Fever	3
Infantile Paralysis	1
Appendicitis	1
Malaria	1
Furunculosis (Multiple)	1
Rheumatism (Acute Articular)	1
Tuberculosis	4
Pyloric Obstruction (and Spasm)	4
Tonsillitis	4
Tetanus	1
Tetany	1
Epilepsy	1

This gives us a total of 27 cases or 23% which might be classed under "Gastric Disturbance." Dysentery is an infection just as typhoid is an infection. Fermentative diarrhea is classed as a "Gastric Disturbance" and is not included under "Dysentery." Under "Respiratory Infection" I have omitted

*Read before the Seventh District Medical Society, Sept. 30, 1925.

the common "Cold" because they are too frequent to keep track of, however some of the most trying cases I have ever been called upon to treat were "Colds." Please bear in mind that such common diseases as measles, mumps, whooping cough, intestinal parasites, etc., were not mentioned in the above list. If a record of all these had been kept the percentage of "Gastric Disturbances" would be materially reduced.

Recently I have been called in consultation to see two children under the age of 3 years who were presumably suffering with "Intestinal Indigestion and Fermentation." Both of these cases were recognized as general peritonitis. This diagnosis was confirmed by operation and both children recovered. The peritonitis in both cases was due to a ruptured appendix. These two cases prove that children do have appendicitis.

I would like to mention two other cases, both in the same family. These two little girls were subject to attacks of "acidosis." Rarely a week passed that one of them was not acutely ill. Every conceivable dietary change was made without results. I was called seven months ago to attend these children, both having an attack at the same time. I could find no dietary error but did find badly infected tonsils in both and urged their removal. The operation was postponed and the attacks continued with the same degree of regularity for the next two months. The tonsils were then removed and both children have remained perfectly well since. The fact that these children had numerous attacks at, or about the same time led the family and the attending physician to believe that the diet was at fault and as mentioned above every conceivable dietary regulation was invoked. The results following the operation warrant the conclusion that these attacks were due to toxins from infection.

I have seen any number of children suffer with vomiting as a result of acute otitis media, and vomiting with diarrhea is not unusual in acute respiratory infections. I recall two brothers, ages about 3 years and 5 years respectively, who were taken sick on the same day with vomiting and diarrhea. The mother

gave them both castor oil with some improvement in the gastro-intestinal symptoms, but the following day she called me and said they were both very sick with a "cold in the chest." Both of these children had pneumonia. Nearly every acute disease of childhood is accompanied with more or less gastro-intestinal derangement and as a general rule the younger children have the more severe symptoms.

I realize that a series of 100 cases is hardly sufficient to permit definite conclusions, but it will serve in a general way to draw our attention away from the baby's stomach and direct it to the child as a whole.

THE INSEPARABILITY OF THE PSYCHICAL AND PHYSICAL IN DIAGNOSIS AND TREATMENT

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The pre-eminent man of medicine of the future will be he who recognizes the unity of the psychical and physical; the specialist, who shall consider his particular field in its intimate relations to the body as a whole. There is such a close interrelation between the various organs and tissues of the human body that a true specialization which limits its outlook solely to one particular system is practically impossible. This is true of psychiatry to a marked degree and we cannot consider the mind as a separate entity divorced from the influences of the manifold physiological processes going on within the same organism. The multiple connecting links between the various organs render it impossible for any pathological physiology to be delimited within any one organ or system. The most important of these connecting links are the vegetative nervous system and the hormones which are thrown into the blood stream by the glands of internal secretion.

The vegetative nervous system functions almost entirely independently of the will but

has a most profound influence upon the welfare of the whole individual. The two divisions; the sympathetic and parasympathetic, are in most instances opposed in their function, the one stimulating and the other inhibiting. Consequently the proper functioning of a viscus depends upon the proper maintenance of balance between these two systems. In turn, though our knowledge of the more intimate relationships of the glands of internal secretion and their method of action are sadly inadequate, we do know that in some way they act upon, through, or similarly to the vegetative nervous system. They thus assist in the maintenance of equilibrium which is dependent upon the proper degree of secretion. Any factor which causes either one section of the vegetative nervous system or one or more of the endocrine glands to habitually overfunction will result in a chronic derangement of the physiology of interrelated organs and tissues. There are individuals in whom there is a predominance of action of one or the other of the opposed divisions of the vegetative system. According to whether there is an increase in activity of the sympathetic or the parasympathetic systems, they are designated sympathetotonic and vagotonic.

Now there is no more intimate relationship in the human organism than that between these two systems: the vegetative and endocrine, and the emotional equilibrium of the individual. How many are the physical aberrations which influence the mental state. Toxic conditions, which have a profound action through the sympathetic system in general, have a marked influence upon the emotional status. How familiar to everyone are the deliria of acute febrile states. The presence or degree of delirium depends in turn upon the presence or absence of a proper balance between the opposing systems before the flood of toxin attacks the organism. Again we have the emotional instability and manifold psychic aberrations which may accompany toxic goitre which in turn may be referable to some remote influence acting through the medium of the circulation.

Thus varied and manifold irritative factors, originating in pathological processes in the body, may have a profound influence

upon the mental equilibrium and render one incapable of making the proper contacts which are essential to a healthy mental life. So it behooves us in all cases manifesting any type of emotional upset to search out diligently and eradicate all pathological physiology which may be present. If not actual etiological factors, one is at least removing gross irritants which may militate against the complete recovery of emotional poise. Of course if a logical connection can be found between the pathological physiology and the psychopathology, one is more justified than ever in one's procedure. However, our present-day knowledge of all the factors which link up the various systems is so very inadequate that we would be recreant indeed were we to neglect any angle of approach.

However true it may be that the physical integrity of the organism influences the mental state, to an even greater degree does the emotional state influence the physiology of the various organs and tissues of the body. In the lower animals with whom the necessity for protection against all kinds of dangers from without looms as a more potent factor in their economy than with man in the present civilized environment this relationship is most important. The emotion of fear or anger produced by the approach of danger causes a stimulation of the sympathetic system and of the adrenal and thyroid glands more particularly. There is a consequent increase in heart rate; a cessation of digestion and peristaltic activity in the gastro-intestinal tract; a rapid mobilization of glycogen, etc., so that a maximum of nutrition is relayed to the muscles for the necessities of their increased activity. There is also an increase in tone in the skeletal musculature and many other minor adaptations. In other words there is suddenly produced a very nice adaptation, whereby the organism is rendered most capable of increased and sustained activity in order to act upon the emotion produced by the approach of danger. This relationship is also present in man. We are all familiar, at least through our feelings, with the general physical reactions which take place as a result of an accession of fear or a fit of anger.

All of these reactions in turn are protective in quality.

Now there are undoubtedly pathological emotional states which are psychogenic in origin; that is, they are not derived from physical irritants in the body but are the result of environmental and developmental influences. These emotional states have a profound influence upon the physical make-up. Everyone has seen many instances where there is marked physical pathology without any interference with the normal emotional poise. But the absence of any perverted physiology as an accompaniment of chronic emotional upsets is indeed a rarity. Persistent states of fear—the multiple phobias of the psychasthenic—must produce through the vegetative and endocrine systems a chronic derangement of physiology which, though normal for limited cycles, becomes pathological when constant. The type of reaction depends upon whether the individual is sympathetoconic or vagotonic.

Now all the psychic disturbances which are psychogenic in origin are basically emotional aberrations so that this relationship between the emotions and the body physiology predicated some type of physiological pathology in every instance. And we can go on down the list of these various disorders and pick out in minute detail the pathological processes going on; the anomalies in pupillary reaction; disorders of the digestive system; the subjective and objective cardiac findings; and so on. There is scarcely an organ or tissue which is not influenced thru this medium. There is probably no system in the human economy which is more susceptible to the influences of emotional states than is the whole gastro-intestinal tract and more particularly the stomach. Many is the case of gastric derangement which is treated by the stomach specialist for stomach trouble where the etiological factor may be found in an unsatisfactory family or business adjustment which is causing a chronic emotional upset.

So I return to my original thesis: That we cannot divorce one system from the other in our study of the pathological functionings of the human body. This is two-edged. It applies not only to psychiatry in our proper

handling of psychic states in general but to every other specialty dealing with systems which may be profoundly influenced by emotional states. A failure to consider the influence of emotional states upon the functions of the body will often lead to an impasse from which one might otherwise have escaped. To the specialist and general practitioner this all too inadequate an exposition is meant to convey an admonition: a broader outlook upon the whole problem of perverted physiology is an essential which the modern doctor must not fail to cultivate. It behooves us all to take on this wider concept and to make our observations all inclusive.

SHALL CANCER BE TREATED BY RADIUM OR BY SURGERY?*

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Macon

We should all realize that as there are many different types of cancer with entirely different pathology, so it is out of the question to hope that we are going to find one method of treatment for all malignancies. I have been trying, however, in the past few years to find out the best accepted treatment in certain well-defined types of malignancies. This brief report will summarize the result of this inquiry.

CANCER OF THE BREAST

Here surgery should be resorted to early and radically. Personally I do not think that radium has any place at all in this cancer, not even in the recurrent skin nodules unless as an adjunct to the radical surgical removal. Personally I do not see much result from the use of X-Ray except in extensive skin involvement where it probably prolongs life some. I am not even sure of this, although we still use it as an adjunct to surgery.

CANCER OF THE SKIN

In superficial keratosis and in skin cancers, radium seems to be the accepted treatment. Here the radium element has made its best reputation and I think that in this type of cancer the use of radium is here to stay.

*Abstract from a paper read at the meeting of the Sixth District Medical Society at Indian Springs, Ga., June 23, 1926.

When, however, the skin involved is on the ear—then the cartilage of the ear complicates the treatment. If the keratosis is very superficial so that it can be destroyed without exposing the cartilage or setting up a perichondritis, then radium is indicated. If the lesion is more advanced, then it is less painful and quicker, and just as safe to excise a portion of the ear with the cartilage. It is probably safer to first use the actual electric cautery before excision. In extensive ear cancers the ear should be removed surgically.

CANCER OF THE LIP

Here there is a great diversity of opinion. It seemed to me that I got the best advice from the Cancer Research Department of Harvard Medical school. The treatment there is as follows: If superficial keratosis is present it is destroyed by radium. If lesion more advanced, it is removed surgically. (I would personally advise cautery destruction prior to excision.) Ten days later a block dissection on the neck is done on the side involved. In late bad cases radium is used to prolong life. I am still unconvinced as to the advisability of general block dissections in cancer of the lip. Let us remember that no case is living today where more than one set of glands in the neck were found diseased, and no case where any glands were involved except the lymphatics over one submaxillary.

CANCER OF THE TONGUE

I find that in radium institutions, radium is used exclusively. I find, however, that in Boston radium is used only in the very advanced cases. In other cases the electric cautery is used to destroy the area involved and surrounding tissues. This is done under ether. Ten days or two weeks later neck dissection is done on involved side. No one whom I have seen is proud of his tongue results, and even less proud of cases where floor or side of mouth is involved. In these cases most men expect to lose two cases out of three, at least.

CANCER OF THE UTERUS

Here at least the treatment seems definitely outlined. In cancer of the cervix I have been able to find only one well-known general sur-

geon among my friends up East who still operates. Everyone else believes that radium is the treatment of choice in cancer of the cervix and complete hysterectomy in cancer of the fundus. I still, however, see cancers of the cervix operated on in Georgia by surgeons who can make no money by referring their cases to men with radium. I consider this absolutely inexcusable when men like Oschner five years ago, and Matas at the same time, stopped doing this work. I also think it inexcusable for a surgeon or a doctor doing surgery to do a hysterectomy for a cancer of the cervix and then refer the case for radium when he gets the inevitable recurrence. For God's sake let us be honest with these poor victims of a terrible disease. I find that the present recognized method of treating cancer of the cervix is to give the full dose of radium, (from five to six thousand units) at the initial dose. I divide this between the radium element and radium seed. Consequently the patient gets practically 1750 units the first twenty-four hours, 650 the second and in diminishing dose each consequent day. The first day is the only day when the radium element is used, each succeeding day the dosage being from the radium emanation seed.

CANCERS OF THE PAROTID

I find that whereas in Texas, mixed tumors of the parotid are still being removed surgically, with inevitable facial paralysis, that in Boston radium is being used exclusively. We have far more of these cases than one would imagine and it was with a great deal of gratification that I found that the above was true. I realize, of course, that this treatment with radium seed is not perfect—but it seems to me the best at present. I have six of these cases under observation and treatment at present, and so far all are doing well with no paralysis and only one slight fistula which is closed just now.

The above is, of course, only a sketchy report—but I think it worth while to report on the observations recently made and my conclusions from the same.

MILK INJECTIONS IN ACUTE PELVIC INFECTIONS*

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Atlanta, Ga.

Inflammation has been defined as a "process of repair following limited damage," the damaging agent usually being of bacterial origin. The process of repair is carried out by the connective tissue cells, which with the body fluids and leucocytes offer the main defense against infection to either destroy or wall it off. In this struggle the cell may become damaged or exhausted, requiring stimulation, and it is known "that such a cell responds to stimulation better than a normal cell."

Many agents, chemical and mechanical, have been used to spur these cells on to greater effort or to recharge them. When specific vaccines were introduced it was believed that the ideal stimulant had been found, but they have proven more or less a disappointment. It is believed by many that what efficacy they possess is due to their protein content rather than to any specific action.

About a decade ago non-specific protein therapy began to be advocated. This at first was ridiculed and called empiric, but recent investigations have shown their mode of action and the real reason for the benefit derived from such treatment.

Spangler in a recent article on the therapy of non-specific protein reactions says, in his summary, that "the mechanism of the non-specific protein reaction is generally conceded to include:

- (a) General cell stimulation—"plasma activation."
- (b) Altered permeability of cell and vessel wall.
- (c) Stimulation of the hematopoietic system.

He states in this same article that both the red cells and the leucocytes are affected; there is an increase in the number of red cells, no increase in the number of leucocytes but a

change in their relation; there is a decided drop in the polymorphonuclears and marked increase in the eosinophiles, often as high as 25% of the total count. His conclusions are drawn from a series of cases treated for epilepsy with snake venom.

The ophthalmologists have been enthusiastic advocates of non-specific protein therapy in acute infections of the eye particularly gonorrheal infections, and many articles are appearing in the literature from these specialists.

Gelhorn was the first in this country to apply this form of treatment to acute pelvic infections. In a recent article he reviews the literature on the subject, which is mostly German, and records the success he has had from this treatment. This article led us to adopt this treatment in the Gynecological Ward of the Emory Division of the Grady Memorial Hospital, treating only colored patients, in whom acute pelvic infections are very common, most of them being gonorrheal in origin, though we made no effort to isolate the organism in the series of cases treated.

Many substances have been used because of their protein content, mainly milk, typhoid vaccine, and snake venom. There are some proprietary preparations on the market such as Aolan and Leucocytic Extracts, but we followed the method of Gelhorn and used milk, for it is cheap, may be obtained anywhere and is easily sterilized. No attention was paid to the bacterial content of the milk for some have found that milk with a high bacterial content gives better result than a certified milk.

The technique is simple and not very painful, the site of the injection being the gluteal muscle. After sterilizing the skin a small calibre needle is plunged into the muscle and the milk slowly injected. After the needle is withdrawn the muscle is gently massaged for a few minutes, which seems to lessen the amount of soreness, which in any case is not great and persists for about twenty-four hours. Care should be taken not to enter a vein. We used the milk supplied at the hospital which was first skimmed and then boiled for ten minutes.

The dose depends on the severity of the infection. With most of our cases we began

*Read before the Fulton County Medical Society, October, 1925.

with 5cc and if the reaction was not too severe, at the end of 48 hours we gave 10cc; at the end of another 48 hours we gave another 10cc. The intervals may be longer if the reactions are very severe. We did not find it necessary to give more than three injections, though more may be given.

The reaction is sometimes very severe. A few hours after the injection the patient may have a chill followed by a rapidly rising temperature, in some of our cases going to 105 degrees. This temperature stays up only a few hours falling rapidly to normal or subnormal, as in the crisis of a pneumonia. After the first injection, though the temperature may rise well above normal, both the local and constitutional symptoms show marked improvement, the abdominal distention, pain and tenderness are lessened and patient expresses a feeling of well being, sometimes far out of proportion to the local improvement. This sense of well being following this treatment is one of the outstanding results. Many insist that they are well though evidences of the infection remain. From February to June, 1925, we treated 18 cases; two of these were post-operative on whom an operation had been performed too early after the acute symptoms had subsided.

I wish to digress here a few minutes to state that we usually follow the rule laid down by Polak in operating on chronic pelvic inflammatory disease, which is to wait until the temperature has been normal for from seven to ten days and the leucocyte count down around six or seven thousand. Whenever we have deviated from that rule we have found trouble. The operation is more difficult, more tissue has to be sacrificed and the convalescence is painful and prolonged. In one of the cases mentioned the leucocyte count was 9,500. The post-operative temperature remained between 99 and 100 degrees for almost two weeks and there was a marked inflammatory exudate in the pelvis. She was given 10cc of milk which was followed by the usual reaction. At the end of 48 hours the exudate had disappeared. She then went on to a rapid recovery.

One of the cases was a postpartum infection. She was admitted with a high temper-

ature, severe abdominal distention and pain. The uterus was fixed by an exudate extending out well into both broad ligaments. The usual treatment for such an infection was given for two or three days without any result. She was then given 5cc of sterilized milk; the usual reaction occurred, followed by a marked amelioration of symptoms; 48 hours later she was given another 5cc and two days later 10cc. After this there was no rise of temperature and all signs and symptoms of the infection had disappeared.

Dr. C. E. Rushin had a similar case in his private practice which he has kindly allowed me to include in this report. He furnished me with a copy of the temperature chart which shows the prompt fall after the first dose. In this case only two doses were necessary, one of 5cc and another of 10cc. All symptoms disappeared after the second dose.

One of our Grady cases returned about a month after the treatment with a return of the acute symptoms though not so severe. She was given three doses of leucocytic extract followed by a complete disappearance of symptoms. An operation was performed later, for removal of large pus tubes. This was the only case in which we used any substance other than milk.

One of the cases was suffering with her first attack of acute pelvic inflammation (most of others were acute exacerbations of chronic inflammations.) There was not only a prompt disappearance of all her constitutional symptoms but there was no gross injury to the tubes. She was in the hospital about a week, and when she was discharged examination revealed no gross pathology in the tubes. We believe that, if such treatment is applied in the beginning of the first attack there will result little, if any, damage to the pelvic structures.

The average stay in the hospital of a case of acute pelvic inflammation is from fourteen to twenty-one days, and the admission of such a case is usually frowned upon by the "blood thirsty" House Surgeon because it is occupying a bed that might be used by an operable case.

With the above treatment the patient can often leave the hospital at the end of a week,

which is a great economic saving to the patient and the hospital if the hospital service is charity. When she leaves the hospital she is in such good condition that she can immediately resume her outside duties and does not have to go through the long convalescence as does the patient treated by the old methods. She leaves, as stated above, with a pelvis slightly damaged or one not damaged at all.

We used this treatment on a few chronic cases but with little or no result. We have not used it in any other type of infection but can see no reason why it should not prove of value.

While I was writing this paper an article appeared by Anspach and Jones on the subject of preparing for operation patients with inflammatory disease of pelvis and our experience coincides so closely with that of the authors' that I am going to quote a paragraph of their article:

"The effect of foreign protein given by intramuscular injections of milk has been observed by Roy Mohler and myself in 12 cases. Foreign proteins in inflammatory cases often render a subsequent operation unnecessary. As a matter of fact, in only two cases of my series was an operation performed subsequently; in the others, the patients felt so well that they refused operation. Peterson and Gellhorn have used the method frequently, having in mind chiefly the avoidance of operation, but I am inclined to believe that as a treatment preparatory to operation, it will have equal value."

CONCLUSIONS

1. Intramuscular injections of a foreign protein in cases of acute pelvic inflammations shorten by many days the course of the disease.

2. When used in the primary attack it renders a subsequent operation unnecessary in the majority of cases, as there is no palpable damage to the pelvic structures.

3. In acute exacerbation of chronic cases where large masses are present, it is a valuable aid in preparing the case for operation, the acute symptoms rapidly subside and the general resistance of the patient is so raised

that operative procedures are rendered less dangerous.

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2. Gelhorn: "Milk Injections in Gynecology and Obstetrics." *The American Journal of Obstetrics and Gynecology*, November, 1924.
3. Anspach and Jones: "The Treatment of Secondary Anemia by Blood Transfusion Preceding Operations for Myoma Uteri and Pelvic Inflammatory Disease." *The American Journal of Obstetrics and Gynecology*, August, 1925.

436 Peachtree Street

EYE INFLAMMATION IN THE NEW BORN*

B. H. MINCHEW, M.D.

Waycross

The questions suggested by this title might as well be answered by an obstetrician as an oculist. It is the obstetrician who is usually consulted when a condition occurs affecting any part of the body of an infant, and particularly is this true when an eye inflammation occurs soon after delivery.

None of us have as many cases of this character to contend with as in the past. In the first place the specialization of diseases has classified them in such manner that they are being treated by individuals trained in their particular line of work; and parents are also being educated along the lines that prevent a great many of these affections. Our knowledge of infection has brought about a condition where the problem is almost solved before the beginning, and this is particularly true with the form of infection in the new born which was so disastrous to sight in the years past. Parents have learned that infections which may be transmitted to the baby during labor can be avoided either by their own efforts or by consultation of physicians in special lines. Particularly can they be avoided if the obstetrician exercises the necessary care before the birth of the child.

In regard to inflammations which may occur in the new born, it cannot be said that they are free from any of the simple infec-

*Read before the Eleventh District Medical Society, Valdosta, Ga., January 13, 1925.

tions which may be prevailing at given seasons or under certain conditions. As a matter of fact it is easy to understand how a baby may have the common sore eye, known as "pink eye," if it comes in contact with a source of transmission at the season of the year when this disease is prevailing. You can well understand how other children in a family can infect the baby with the Kochs-Weeks bacilli by simple contact through their affection for and handling of the baby.

You can understand how an infant might have a simple conjunctivitis of the pneumococcus type or, as a matter of fact, any of the pus producing organisms. I have recently seen a simple conjunctivitis, caused from lack of careful cleansing on the part of a practical nurse, in one of the good families of our town. The epidermal debris, which occurs in all infants when a few days old, together with the powder and talcum used on the little fellow's face, had accumulated on the lids, and the nurse simply washed its face and allowed this accumulation to remain.

When the baby was brought to my office it had been unable to open its eyes for two or three days, and it required several days of simple cleansing methods of the lids, and a local application to remedy the conjunctivitis, which had occurred as a result of the condition named. The doctor in the case was not at all at fault, but it is a thing which should be watched by the mother or nurse, or whoever has the care and cleansing of the child.

With all the conditions outlined in the opening of my paper, which have brought about better conditions in regard to infection, we have not been able to entirely exclude that dread disease known as "ophthalmia neonatorum" from the new born. As long as the gonococci are present we will have some cases of this disease to contend with, and no matter how much we dread the treatment of the case or the very unfortunate outcome which may attend our most careful efforts, we will have it occur occasionally.

As general practitioners we should be very careful not to overlook a case of this character on account of the prominence or social stand-

ing of the parents, and allow the infection to get beyond control before making a diagnosis. We should suspect any case of severe infection, occurring within the first ten days of the child's life, where there is an extreme swelling of the lids, photophobia, and a great quantity of pus, as ophthalmia neonatorum, and immediately consult the parents as to a previous or current infection of this disease. We should start a vigorous treatment without delay, and if the diagnosis is desired by the specialist let him make that after a systematic method of combatting the infection has been instituted. Do not wait on laboratory reports in a case of this character, but start treatment immediately and allow your reports to come in later, if you insist upon them.

There are only one or two other infections which might be mistaken for the gonorrheal type, and those are due to the Kochs-Weeks bacillus and the pneumococcus. In my observation I have not seen any cases of the latter quite as bad as the gonorrheal, even in the beginning. It will usually be found, if a baby has either a Kochs-Weeks or pneumococcus infection, that other members of the family will be recovering from a similar infection of the eyes, or that some child or person in the community, who has been in contact with the baby, will show manifestation of a like disease.

This is not true, of course, with the infection of gonorrhea, which is, in nearly every instance, the result of infection recurring during the period of labor, and manifests itself within the usual primary incubation period.

It occurs to me that it would be a good practice for the obstetrician to make an inspection of the baby's eyes by simply opening the lids with the thumb and index finger upon each of his visits after delivery. In this way he should notice whether the nurse is taking the proper care of the eyes, and prevent the simple inflammations which occur from neglect or a real pus producing organism. If this is done all of these conditions will be recognized early enough that the danger arising from neglect, or infection may be overcome.

FATAL DISEASE CARRIED TO MAN BY BITE OF TICK

No less than twenty-two human infections are known to be transmitted by the bites of insects, says Dr. R. R. Spencer in *Hygeia* for August. Three of these are transmitted by a bloodsucking parasite of North America, known as the tick. The most feared of the three is Rocky Mountain spotted fever.

The infection is frequently fatal, the mortality in some years reaching 90 per cent in certain areas in which the disease exists in a particularly virulent form. The disease does not occur outside of the infected area, which comprises roughly Wyoming, Idaho, Utah, Colorado, Nevada, Montana, Washington, Oregon and Northern California. It is naturally prevalent among foresters, lumbermen, sheep herders, surveyors, hunters, prospectors, fishermen, vacationists and those who undertake to study it.

All of the large domestic and wild animals are immune to this disease, but man, monkeys and guinea-pigs are highly susceptible. Symptoms of the disease begin from two to nine days after the tick bite. Chill and fever, severe muscular and joint pains, extreme prostration and the typical rash are characteristic of the disease.

COMPARE STUDENTS' AND EMPLOYEES' HEALTH

Out of 1,200 men entering a university, less than 5 per cent were suffering from correctable defects; out of a similar number of employees in a store, 95 per cent were suffering from correctable defects. Fortunately, more and more large factories and department stores are learning the value of employing health workers and keeping them in good health, says *Hygeia*.

Overcrowding, overheating and inadequate lighting were found almost universally in department stores.

DOCTORS ARE SACRIFICED FOR HEALTH OF PUBLIC

Since the time when the Black Death swept through Europe, physicians have sacrificed themselves to the cause of public health and safety, according to *Hygeia* for July. Reed, Carroll and Lazear were lost in the fight against yellow fever; Ricketts and McClintic succumbed to typhus and to Rocky Mountain fever; Brazy lost his eyesight from secondary infection during an operation; others have suffered terrible mutilations while investigating the X-ray.

A complete list can never be assembled because so many have passed without the recognition of the world, giving their lives silently in the routine performance of their duties.

HOW SOUNDLY WE SLEEP SUBJECT OF NEW STUDY

Contrary to the popular conception, a normal person sleeping soundly lies without stirring for an average length of only eleven minutes, according to reports of a recent study on sleep described in *Hygeia* for August.

Out of over 14,000 measurements, only one rest period of more than three hours was observed. Absence of motion was used as a sign of rest. The subjects slept in beds with special apparatus to record very slight movements. They were all normal, healthy persons who retired at 11 p.m. and slept in a quiet, well ventilated room until 7 a.m.

UPPER RESPIRATORY INFECTION AS CAUSE OF CHOLERA INFANTUM

Philip C. Jeans and Mark L. Floyd, Iowa City (*Journal A. M. A.*, July 24, 1926), direct attention to mastoiditis and nasal sinusitis as causes of "cholera infantum" and record further evidence, particularly in regard to sinus disease, that these infections are at least a common cause of the clinical picture. There is a relationship between upper respiratory infection and a clinical picture corresponding to what has been described under the term cholera infantum. In recent years all patients presenting this clinical picture who have come under the authors' observation have had either mastoiditis or paranasal sinusitis or both as the apparent underlying cause of their disturbance. The infection seldom is obvious, while the gastro-intestinal symptoms usually are prominent. The establishment of adequate drainage from the site of infection brings about prompt and complete recovery.

LEPERS WELL CARED FOR AT NATIONAL INSTITUTION

With only 1,200 lepers in the United States today, the disease may be easily controlled, according to *Hygeia*.

When the first institution for lepers was founded in Louisiana, it was necessary to transport the sufferers to it at night, because of the hysteria aroused at the mere presence of a leper in any community. Now this institution has passed into the hands of the Federal Government, and about 425 patients are cared for there according to the latest scientific methods.

A system of parole is kept, so that after repeated examinations a patient who has improved and is free from the germs of the disease may be released from the institution. He is kept under observation for a period of years before securing his final release. In the meantime, investigations of the methods of the treatment of the disease continue to be made.

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Profession of Georgia.

139 Forrest Ave., N. E., Atlanta, Ga.

OCTOBER, 1926

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Articles are accepted for publication on condition that they are contributed solely to this Journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Reprints should be ordered within 30 days after the appearance of an article, since all type will be destroyed at the end of that time.

Editorial Department

THE RETICULO-ENDOTHELIAL SYSTEM

Aschoff and others have called attention to a group of cells composing the reticular network of the blood forming organs and the endothelial lining of the blood and lymph channels, which possess certain vital staining properties that differentiate them from other connective tissue cells. These cells constitute a group designated as the "reticulo-endothelial system." Interest in their activities centers principally about the part they play in the body's defense against disease and their hematopoietic properties as progenitors of cellular elements of the blood.

In the embryo the blood cells are formed first in ill defined portions of the mesoderm, and later, within the developing vascular channels. Then the process, retained for a time by the blood vessels, becomes the possession of the bone marrow and lymphoid structures of the body.

Metchnikoff, in 1883, was the first to suggest that the large mononuclear leucocytes of the blood stream are identical in their properties and characteristics with the endothelial cells of blood and lymph vessels. He also called attention to their ability to ingest other cells; and because of this property, called them "macrophages."

Their activities can be quite readily demonstrated in the walls of the small blood vessels and in the stroma of lymphoid tissues. As the result of certain irritations, they become swollen and detached from their neighbors, leave their places, and migrate into the surrounding tissues. Sometimes this migration and proliferation within the lymph spaces is sufficient to almost occlude them. Such an accumulation, occurring in the axillary lymph nodes of a patient with cancer of the breast, has sometimes been cited as a precancerous lesion. It is, however, a condition quite frequently found in any low grade inflammatory process.

Mallory points out that the same cells are especially concerned in the lesions of syphilis, tuberculosis, blastomycosis, leprosy, and typhoid fever. In the latter state, they proliferate in Peyer's patches in such large numbers that they form structures microscopically resembling liver cords, which, with evidence of phagocytosis of red cells and lymphocytes, constitute the classical lesion of this disease. In tuberculosis they are likewise the cells called upon to defend the body; and their presence in characteristic arrangement furnishes histological evidence of the tubercle bacilli's activity. In this lesion, they arrange themselves in a concentric mass about the focus of infection, appearing in the form of epithelioid cells and fibroblasts, in an apparent endeavor to prevent the organism's invasion of the surrounding tissue. Here, by their fusion, they also form the characteristic foreign body's giant cells.

Endothelial cells also act as scavengers in other types of inflammation. Following the infiltration of the more active phagocytic cells, they pick up the broken tissue fragments and blood pigment, carrying them away to the lymph vessels.

Their part in the healing processes as the progenitors of fibroblasts has been much disputed; but because of their close relationship to such connective tissue structures and the fact that in cultures they produce both the elongated fibroblastic variety of cells and endothelial leucocytes, it is quite probable that they assist the fixed connective tissue cells of the injured part in the process of repair. Besides these aggressive activities, it is interesting to note the conclusions of some that the natural end of the leucocytes and red blood cells is determined by the phagocytic properties of reticular and endothelial cells in the lymph nodes and spleen.

The endothelial lining of the sinusoids of the liver is represented by the presence of Kupffer's cells, which occur at intervals on the walls. They possess the same highly phagocytic properties as those of the spleen and lymph nodes, ingesting erythrocytes and any fine particles, such as India ink, which may be injected into the blood stream.

In certain types of hemolytic icterus in which the liver does not seem to be concerned, characterized by the presence of bile pigments in the blood and urine without bile salts, it is believed by some that the pigments are produced, not by the liver cells, but by Kupffer and other reticular and endothelial cells. Wells states that, "In view of the numerous observations made with the Van den Bergh test, it now seems probable that the bilirubin derived from hemolized blood cells is formed in the reticulo endothelial cells, especially, but by no means solely, in the Kupffer cells of the liver. From the Kupffer cells it is presumably passed to epithelial cells of the liver, in which it undergoes some slight change before being excreted into the bile capillaries, so that now it gives the direct or immediate reaction, whereas bilirubin that has not passed through the epithelium gives only the indirect or delayed Van den Bergh reaction."

Another interesting phenomenon in which it is suggested that these cells play a part has been observed in the study of anaphylaxis. It has been noted that if a suspension of oxide of iron is injected into the blood vessels of an experimental animal following sensitizing doses of albumen, that the anaphylactic dose

is not followed by the shock that occurs in the control animals. The conclusions of the investigators are that the oxide blocks the endothelial cells and renders them less permeable or that it stimulates them to increased activity.

CRISP COUNTY MEDICAL SOCIETY HONORS PRESIDENT HARVARD

The members of the Crisp County Medical Society together with their wives held a banquet in honor of our President, Dr. V. O. Harvard of Arabi at the Suwanee Hotel in Cordele on October 4, 1926.

The Crisp County Society has long been known for its loyalty to the Association and its intense interest in all matters of public welfare. Dr. Harvard is the second President of the Association furnished by Crisp County, the other being Dr. T. J. McArthur, Cordele, whose administration was one of the most progressive in our entire history.

Following the banquet all of the members paid their dues for 1927 to Dr. J. N. Dorminy of Cordele, Secretary of Crisp County Medical Society, who immediately remitted to the State Association, thus giving Crisp County first place on our honor roll for 1927.

EFFECT ON VISUAL ACUITY OF VIEWING MOTION PICTURES

More than 150 persons, university, college and high school students, and business men, were examined by A. Ray Irvine and M. F. Weymann, Los Angeles (Journal A. M. A., Oct. 2, 1926), with reference to the effect on visual acuity of viewing motion pictures. The Ives apparatus is dependable as a measure for small variation of visual acuity. More fatigue was evident after forty-five minutes of reading current magazines than after viewing either a black and white, or a colored, motion picture for one and one-half hours, if visual acuity is used as a criterion for fatigue. The viewing of colored pictures of the technicolor process is not more fatiguing to the eyes than the viewing of black and white pictures, but, on the contrary, seems to cause less fatigue as judged by the impairment of visual acuity. Those who suffer eyestrain from motion pictures are those who are unable to accomplish other ocular work without fatigue.

District and County Societies

District Editors

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Long, W. V., Savannah. 2. Watt, C. H., Thomasville. 3. Greer, Chas. A., Oglethorpe. 4. Peniston, Joe B., Newnan. 5. Fitts, Jno. B., Atlanta. 6. Thompson, O. R., Macon. | <ol style="list-style-type: none"> 7. McCord, M. M., Rome. 8. Carter, D. M., Madison. 9. Bennett, J. C., Jefferson. 10. Lee, F., Lansing, Augusta. 11. Mixson, W. D., Waycross. 12. Cheek, O. H., Dublin. |
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1926 HONOR ROLL

1. Randolph County, Dr. G. Y. Moore, Cuthbert, November 5, 1925.
2. Warren County, Dr. Robert C. McGahee, Warrenon, December 22, 1925.
3. Dougherty County, Dr. Albert S. Bacon, Albany, January 4, 1926.
4. Upson County, Dr. H. A. Barron, Thomaston, January 7, 1926.
5. Lamar County, Dr. John M. Anderson, Barnesville, January 21, 1926.
6. Crisp County, Dr. J. N. Dorminy, Cordele, February 4, 1926.
7. Evans County, Dr. D. S. Clanton, Hagan, February 13, 1926.
8. Stephens County, Dr. C. L. Ayers, Toocoa, March 12, 1926.
9. Emanuel County, Dr. R. C. Franklin, Swainsboro, March 20, 1926.
10. Turner County, Dr. J. H. Baxter, Ashburn, March 31, 1926.
11. Screven County, Dr. J. C. Cail, Sylvania, April 23, 1926.
12. Wayne County, Dr. M. N. Stow, Jesup, May 4, 1926.
13. Pike County, Dr. M. M. Head, Zebulon, May 4, 1926.
14. Terrill County, Dr. Logan Thomas, Dawson, May 11, 1926.
15. Forsyth County, Dr. Marcus Mashburn, Cumming, July 2, 1926.
16. Franklin County, Dr. B. T. Smith, Carnesville, August 12, 1926.
17. Ben Hill County, Dr. L. S. Osborne, Fitzgerald, August 24, 1926.

1927 HONOR ROLL

1. Crisp County, Dr. J. N. Dorminy, Cordele, October 6, 1926.

JENKINS COUNTY MEDICAL SOCIETY ENTERTAINS

On Wednesday evening, August 5th, the Jenkins County Medical Society entertained a joint meeting of the medical societies of Emanuel, Screven and Burke at the Rogers Club House near Millen.

The meeting was called to order by Dr. M. E. Perkins, President of the Jenkins County Society, who then requested Dr. E. T. Coleman of Graymont to preside.

The following program was carried out:

1. Report of Interesting Cases.
2. The Acute Abdomen, Dr. Q. A. Mulkey, Millen, Ga.
3. The 1926 International Clinic, Dr. R. C. Franklin, Swainsboro, Ga.
4. Preventive Medicine, Dr. W. R. Lovett, Sylvania, Ga.
5. The 1926 Pediatric Seminar at Saluda, N. C., Dr. H. G. Lee, Millen, Ga.
6. Demonstration of X-ray plates of Gall-bladder and of Osteomyelitis with remarks, Dr. C. Thompson, Millen, Ga.
7. Suggestions for the good of the societies.

After the completion of the program a delightful barbecue supper was served as only the Millen men know how to serve one. It was decided to have an annual meeting of these four societies. Next year the Screven County society will be host. Notwithstanding the weather was very inclement a large number of the members from each county were present. All voted it a most pleasant and profitable meeting.

Respectfully,

R. L. MILLER, M.D.

Floyd County Medical Society

The Floyd County Medical Society announces the following officers for 1926:

- President—A. F. Routledge, Rome.
 Vice-President—J. L. Chandler, Rome.
 Secretary-Treasurer—J. H. Mull, Rome.
 Delegate—W. H. Lewis, Rome.
 Alternate—J. C. Watts, Rome.
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6th District.....Mrs. C. H. Richardson, Jr., Macon	12th District.....Mrs. T. C. Thompson, Vidalia

SECOND ANNUAL MEETING WOMAN'S AUXILIARY TO THE SOUTHERN MEDICAL ASSOCIATION

ATLANTA, NOVEMBER 15, 16, 17, 18

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CONVENTION PROGRAM

TENTATIVE

MONDAY, NOVEMBER 15
4 P.M.

Meeting of the Executive Board of the Auxiliary A. M. A. Mrs. F. P. Gengenbach, President, presiding.

MONDAY NIGHT

Attendance to the opening of the convention.

TUESDAY, NOVEMBER 16
9:30 A.M.

Meeting of the Executive Board of the Woman's Auxiliary to the Southern Medical Association at the Academy of Medicine. Mrs. D. J. Williams, President, Gulfport, Miss., presiding.

TUESDAY, 11 A.M.

Meeting of the Executive Board of the Woman's Auxiliary to the Medical Association of Georgia at the Academy of Medicine. Mrs. C. W. Roberts, President, Atlanta, presiding.

TUESDAY, 1 P.M.

Luncheon to the members of the three exec-

utive boards and the distinguished guests by the Executive Board of the Fulton County Auxiliary.

TUESDAY, 2:30 P.M.

Ride to Stone Mountain.

TUESDAY, 8 P.M.

Banquet at the Biltmore Hotel. Music, singing and dancing.

WEDNESDAY, NOVEMBER 17

9:30 A.M.

General meeting at Woman's Club.

WEDNESDAY, 3 to 5 P.M.

Music at the Piedmont Driving Club. Tea.

WEDNESDAY P. M.

Presidential reception.

GENERAL MEETING PROGRAMME WOMAN'S CLUB

NOVEMBER 18, 1926, 9:30 A.M.

1. Invocation, Mrs. W. L. Davis, Albany, Ga., Vice-President Auxiliary Med. Asso. Ga.
2. Roll Call of Officers.
3. Roll Call of States.
4. Greetings, Mrs. Allen H. Bunce, President Fulton County Auxiliary.
5. Address of Welcome by Mrs. Marion T. Benson, General Chairman Convention; Secretary-Treasurer, State Auxiliary.
6. Address of Welcome by Mrs. C. W. Roberts, President State Auxiliary.
7. Response to Addresses of Welcome.
7. Response to Addresses of Welcome, Mrs. S. A. Collom, Texarkana, Texas.
8. Announcement of Committees.
9. Minutes of Last Annual Meeting.
10. Address, Dr. A. T. McCormack, Louisville, Ky.
11. Report of Officers.
12. Report of Committees, Entertainment included.
13. Report of Organized States.
14. Report of Resolution Committee, Mrs. J. E. Sommerfield, 220 Ponce de Leon Ave., Atlanta, Ga.
15. Report of Nominating Committee.
16. Election of Officers.
17. Report of Courtesy Committee.
18. Unfinished Business.
19. New Business.
20. Adjournment.

The Georgia State Association of Graduate Nurses will meet in Savannah, Ga., for their annual meeting October 21, 22, 23. The Desoto Hotel will be Headquarters during the Convention.

NINTH DISTRICT AUXILIARY MEETING

The Woman's Auxiliary to the Ninth District Medical Association held its semi-annual meeting in Hoschton at the home of Dr. and Mrs. H. B. Allen on Wednesday, September 15th.

The lovely bungalow of Dr. and Mrs. Allen was very attractive with vases and baskets of asters and pots of archimime.

Miss Myrtie Allen and Miss Jessie Mae Ataway served punch and sandwiches as the guests entered.

Mrs. J. H. Downey, President of the Ninth District Woman's Auxiliary, presided at the meeting and gave a very interesting talk on the work for the Auxiliary to accomplish and plans for carrying out the work during the ensuing year. She read a letter from the Fulton County Auxiliary inviting all members to the meeting of the Auxiliary to the Southern Medical Association to be held in Atlanta November 15, 16, 17 and 18.

The meeting adjourned to attend an old-fashioned barbecue given by the local physicians, Auxiliary and the Hoschton Woman's Club.

COMMITTEES

COMMITTEE ON PROGRAM AND ENTERTAINMENT
Mrs. H. M. Fullilove, Chairman..... Athens
Mrs. Paul Holliday..... Athens
Mrs. W. H. Cabaniss..... Athens
Mrs. R. M. Goss..... Athens

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Mrs. J. Cox Wall, Chairman..... Eastman
Mrs. Chas. C. Hinton..... Macon
Mrs. B. H. Minchew..... Waycross

COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION

Mrs. O. H. Matthews, Chairman..... Atlanta
Mrs. T. F. Abercrombie..... Atlanta
Mrs. J. W. Daniel..... Savannah

FINANCE COMMITTEE

Mrs. Nichols Peterson, Chairman..... Tifton
Mrs. A. H. Black..... Thomaston
Mrs. A. S. M. Coleman..... Douglas

COMMITTEE ON ORGANIZATION

Mrs. L. F. Lanier, Chairman.... Rocky Ford

Georgia Examinations for Registration will be held November 18th and 19th in Macon, Atlanta, Savannah and Augusta providing 10 applicants from each are received. Applications must be in the office of the Secretary, 101 Forrest Ave., N. E., Atlanta, Ga., before November 10th.

BOOK REVIEWS

New and Nonofficial Remedies, 1926, contains descriptions of articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1926. Cloth, price postpaid, \$1.50. Pages 459+XLIII. Chicago: American Medical Association, 1926.

New and Nonofficial Remedies, 1926, is a book that was published by the Council on Pharmacy and Chemistry of the American Medical Association on January 1 of this year. It provides the medical profession of America with true and impartial descriptive information of proprietary medicines which the Council considers reliable and efficient.

In the preface is a list of articles omitted because they conflict with the rules that govern the recognition of articles. While most of these happen to be serums and vaccines, it is by no means the intention of the Council to convey the idea to the medical profession that they are not of real value. It has omitted those particular preparations that are not licensed for interstate sale.

The appendix contains a very extensive list of references to proprietary and nonofficial remedies not included in this volume.

Every physician should obtain a copy of the 1926 edition to use as a reference book of trustworthy proprietary remedies.

RAIFORD T. WARNOCK, M.D.

Elements of Pathology, by A. G. Ellis, M.D., Rockefeller Foundation Visiting Professor of Pathology and Director of Studies, Medical Department of Chulalongkorn University, Bangkok, Siam. One-time Associate Professor of Pathology, Jefferson Medical College, Philadelphia. Published by P. Blakiston's Son & Co., Philadelphia, Pennsylvania. Octavo of 544 pages with 95 illustrations. Cloth. Price, \$5.00.

This is a new text-book which covers closely the elementary principles of pathology. It would be of considerable value to every medical student, and to students of pathology as supplementary reading matter.

The author has made a special effort to discuss the problems of pathology in relationship to internal medicine and surgery.

The aim of the second part of the book is to tell the student or physician how to make a post-mortem examination and to help him interpret what he finds.

A brief description of the normal organs, and the pathologic anatomy of the organs in various diseases are given.

RAIFORD T. WARNOCK, M.D.

NEWS ITEMS

The Walton County Hospital, Monroe, continues to win recognition from the people of that section as an indispensable institution and an asset of inestimable value.

Drs. T. H. Clark and J. R. Smith, Douglas, owners of the Clark-Smith Sanitarium; sent a nurse from their institution to West Green with a supply of typhoid serum to vaccinate the people of that community. Miss Poindexter said the people were anxious to be vaccinated and rendered every assistance possible.

The Francis-Berrian Hospital, South Broad Street, Rome, has filed application with the clerk of the Superior Court to change the name of the institution to "The McCall Hospital."

Mrs. E. C. Thrash, Atlanta, entertained the Woman's Auxiliary of the Fulton County Medical Society in honor of Miss Kate Thrash of Milledgeville on August 24th at their home on Boulder Crest Road.

Dr. W. F. Reavis has opened offices in Waycross. He practiced medicine in Homerville for five years and was physician for the Hebard Cypress Company for nine years.

Dr. William H. Bryan has recently taken charge of the United States Marine Hospital, Savannah, as chief surgeon.

The annex to the Little-Griffin Hospital, Valdosta, is nearing completion and will add about fifty per cent to the capacity of the institution.

Drs. Frank Bird and J. F. Mixson, Valdosta, have begun work on the new hospital which they have planned to build and equip with every modern convenience for the comfort and treatment of patients.

The U. S. Army recruiting office, Augusta, wants to enlist three physicians for the medical department. Particulars furnished at Room 313, post office building, Augusta.

The board of education of Bartow County required every school teacher in the county to undergo a physical examination which was given free by the physicians of the county.

The doctors of Waynesboro gave a pre-school clinic at the Red Cross office in the Masonic Temple on August 18-19.

At a meeting of the Richmond County Medical Society held at St. Paul's Parish House, Augusta, on August 19th, Dr. H. M. Michel read a paper on "The Relation of Trauma to Bone Sarcoma," which was discussed by Dr. H. N. Page; Dr. Irvine Phinizy read a paper on "Carcinoma of the Lung,

with Report of a Case," discussed by Dr. Chas. W. Crane; Dr. R. H. Chaney read a paper on "Cancer of the Lip, Tongue and Cheek," discussed by Drs. H. N. Page, T. E. Oertel and G. T. Bernard.

Miss Jane VanDeVrede, Executive Secretary of the Georgia State Association of Graduate Nurses was called by the American Red Cross to the disaster area in Florida to take charge of the nursing situation. Miss VanDeVrede was formerly with the Southern Division of the American Red Cross as the Director of Nursing service and was glad to answer this emergency call. However, she will return to her office as soon as the immediate needs have been provided.

About twenty patients were listed for the clinic in Arlington on August 25th for the removal of tonsils and adenoids. Drs. C. K. Sharp and W. W. Calhoun, of Arlington, sponsored the clinic, assisted by Dr. I. W. Irvin, Albany, together with the co-operation of the Parent-Teachers Association.

Dr. J. W. Edmondson, Dublin, has been appointed local surgeon for the Macon, Dublin and Savannah railroad.

Miss Elizabeth C. Griffin, surgical nurse at the Savannah Hospital, has been appointed superintendent of nurses at the institution.

Dr. E. F. Wahl, formerly with Johns Hopkins Hospital, Baltimore, has been appointed to the staff of John D. Archbold Memorial Hospital, Thomasville.

Dr. Luke Robinson, Covington, has been appointed a member of the State Board of Medical Examiners by Governor Walker.

Dr. J. M. Spence, Camilla, has been in a New York Hospital taking treatment and his friends throughout Georgia will be pleased to learn that his health has greatly improved.

The Eighth District Medical Association met in Royston August 11th. The following scientific papers were read: Abnormalities of Human Behavior by Dr. N. M. Owensby, Atlanta; Further Observation in Treatment of Diabetes by Dr. W. H. Hailey, Atlanta; Phlebitis by Dr. Paul L. Holaday, Athens; Cardiac Arrhythmia by Dr. G. O. Wheelchel, Athens; Hernia of the Urinary Bladder by Dr. J. A. Hunnicutt, Jr., Athens; Congenital Hypertrophic Stenosis of the Pylorus by Dr. Stewart D. Brown, Royston; The Roentgen Diag-

nosis of Gall Bladder Disease by A. A. Rayle, Athens.

Dr. J. H. Nicholson announces the opening of offices at 78 East Ellis Street, Atlanta.

Dr. M. E. Winchester, Division of County Health Work, Georgia State Board of Health, visited Waycross on September 10th inspecting the work of the Waycross and Ware County Health Department, a great deal has been done to combat preventable diseases.

Dr. B. T. Johnson and family moved from Edison to Bluffton and are being welcomed in their new home by their many friends.

The Woman's Auxiliary to the Fulton County Medical Society is making elaborate plans for the entertainment of all visiting ladies in Atlanta during the meeting of the Southern Medical Association November 15 to 18, inclusive.

Dr. C. H. Frank, Surgeon, on board the Yamacraw in the coast guard service near Savannah, prescribed treatment by wireless for the captain who was ill on board the British tramp steamer Sheaff Field, off the Georgia coast, there being no physician on board his ship.

Dr. W. H. Born, McRae, and Drs. C. J. Maloy and J. R. Bradfield, Helena, have organized a health clinic for Telfair County and have done a wonderful amount of work for the prevention of diphtheria and typhoid.

Oglethorpe Private Infirmary, Macon, is being remodeled and a three-story addition built at a cost of more than \$25,000.00. The ground floor will be equipped with X-ray, laboratory, laundry, dining room and kitchen while the other space will be used as private wards, delivery room, nursery, diet kitchen, bath and operating room.

A public health meeting was held at Hoschton on the evening of September 15th. The principal speakers were: Dr. J. P. Bowdoin, Division of Child Hygiene of the Georgia State Board of Health; Dr. J. L. Campbell, Chairman, Cancer Commission of the Medical Association of Georgia.

Dr. Wm. L. Hogue, formerly of Draketown, has moved to Villa Rica and opened offices at the Malone Drug Store. He has a splendid reputation as a successful physician.

Drs. H. J. Ault, E. O. Shellhorse, H. L. Erwin, and F. G. McAfee held a free clinic for the school children under eight years of age at Dalton on September 3d and others will be held from time to time until physical examinations have been made of all the children in Dalton and outlying districts.

The Ninth District Medical Society held their semi-annual meeting in Hoschton on September 15th. The following prominent physicians were on the program: Drs. L. W. Hodges, Gainesville; F. M. Hubbard, Commerce; V. O. Harvard, Arabi, President of the Medical Association of Georgia; T. F. Abercrombie and Joe P. Bowdoin, Atlanta, members of the State Board of Health; Dr. E. C. Thrash, Atlanta; J. H. Downey, Gainesville.

MARRIAGES

Mr. and Mrs. Turner Walton Clanton announce the engagement of their daughter, Miss Mary Elizabeth, to Dr. Jewell Guy Gainey, of Hosford, Florida, the marriage to be solemnized at St. Mark's Methodist Church, Atlanta, October 27th.

OBITUARY

Dr. Kells Boland, Atlanta, died September 9, 1926, at his home, 126 Washington Street. He was born in Canada in 1840 and came from Illinois to Atlanta 1874. He was an eminent surgeon and treated people from many sections of the South and always willing and ready to devote his time, energy and skill to the treatment of the poor and unfortunate. All who knew him recognized him as an example of Christian manhood and unselfishness. He was greatly beloved by all who knew him and a devoted church worker. He is survived by Miss Amy Boland and our past President, Dr. Frank K. Boland. Funeral services were conducted by Rev. Wallace Rogers, pastor of the Trinity Methodist Church from the chapel of Barelay and Brandon. The stewards of the church served as an honorary escort.

Dr. William C. Estes, Rex, died August 12, 1926, at his home. He was born September 19, 1856, in Clayton County, Georgia. He graduated from the Atlanta Medical College in 1895 and practiced his profession in Atlanta until his death. He was President of the Bank of Rex, Director of the Bank of Lakewood, past master of the Masonic Lodge at Rex, president of the Estes Manufacturing Company and an active member of the Second Baptist Church of Atlanta. He took a prominent part in the affairs of the church and devoted a great deal of time to charity. He is survived by his widow; three sons, J. W. Estes, Decatur; W. B. Estes and Dr. H. G. Estes, Atlanta; three daughters; Mrs. R. C. Cousins, Decatur; Mrs. D. R. Longino, Atlanta; and Mrs. W. A. Ware, Tuscumbia, Ala.; one sister and three brothers. Funeral services were held from the Second Baptist Church with Dr. Chas. W. Daniel, pastor of the First Baptist Church officiating; interment was in West View cemetery.

Dr. Sumner J. Smith, Jefferson, died September 7, 1926, at his home. He was born in 1862. He was considered one of the most popular and successful physicians of his county. He is survived by his widow, two children; one sister, Miss Ella Smith; two brothers, Mr. W. H. Smith and Mr. George E. Smith of Jackson County. Funeral services were held at the First Presbyterian Church, conducted by Rev. Sam Cartledge, pastor of the Prince Avenue Presbyterian Church of Athens. Interment was in Woodbine Cemetery.

Dr. H. A. C. Bagley, Americus, died at his home on August 22, 1926. He was born in Sumter County in 1850. He practiced his profession for many years and was one of the best known physicians of Sumter County. He was seized with a fatal illness and died suddenly. Dr. Bagley is survived by his widow; two sons, Dr. D. A. Bagley, Atlanta, and Dr. George Bagley, DeSoto; two brothers, G. W. Bagley, DeSoto, and I. A. B. Bagley of the 28th District; four sisters, Mrs. B. C. McMichael, Americus; Mrs. M. J. Scott, Orlando, Fla.; Mrs. E. F. Tucker, Sumter County; Mrs. Stonewall Glover, Brunswick; one nephew, Eugene E. Sumerford, of Sumter County.

Funeral services were held at Pleasant Grove Methodist Church, conducted by Rev. D. B. Merritt, pastor of Americus Circuit, assisted by Rev. E. T. Moore, Andersonville.

MEDICAL ASSOCIATION OF GEORGIA

Offices

ATLANTA, GEORGIA

FINANCIAL STATEMENT

Balance in Bank, May 1, 1925.....	\$7,182.68
Total Receipts from all Sources.....	12,941.50

Total to be Accounted for.....	\$20,124.18
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Balance in Bank, May 1, 1926.....	\$5,677.94
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Total Expenditures from May 1, 1925 to	
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April 30, 1926.....	14,446.24
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Total Accounted for.....	\$20,124.18
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DISBURSEMENTS

May 1, 1925 to April 30, 1926

VOUCHERS

No.	Description	Amount
516—	Dr. W. B. Hair, Secretary pro tem Chattooga County Medical Society: Refund of dues to five members: W. J. Bryant, L. A. Mallicoat, R. E. Tally, W. B. Medlin and W. B. Hair: Paid 1925 State dues twice.....	\$ 25.00
517—	Allen H. Bunce, M.D. Salary for May as Secretary-Treasurer and Editor.....	150.00
518—	Miss Martha Irwin Salary for May as Executive Sec.	125.00

519—E. K. Large, Postmaster Stamps for mailing Journal, letters and cards.....	30.00	540—Miss Martha Irwin Salary as Executive Secretary for June	125.00
520—Dr. V. O. Harvard Expense incurred as Councilor, Third District	38.40	541—Dr. Edward Francis Expense incurred as guest of the Association, 1925 meeting.....	78.79
521—Dr. C. K. Sharp Expense incurred as Councilor, Second District	11.00	542—Two Cent Letter Co. Letters sent out to delinquent members by President.....	15.75
522—Dr. M. M. McCord Expense incurred as Councilor, Seventh District	40.00	543—Dr. Cleveland D. Wheelchel Expense to Macon as Councilor for Council meeting May 14, 1925	16.41
523—Atlanta-Biltmore Hotel One-half amount collected for exhibit space at annual meeting, \$282.50; Telephone calls and other expense, \$15.30.....	297.80	544—Southern Press Clipping Bureau Clippings for May.....	5.00
524—Irene Hilton Snyder Reporting 1925 annual meeting..	150.00	545—J. P. Stevens Engraving Co. 250 Letterheads and 250 Envelopes for Pres. Elrod.....	10.25
525—Lyon-Young Printing Co. Printing April issue of Journal..	404.83	546—Lester Book & Stationery Co. Plain white paper, rubber bands, dater and stamp pad.....	4.40
526—Mrs. W. F. Goodroe Operating addressograph for January, February, March and April	28.50	547—F. J. Cooledge & Sons Putting in two glass book case doors	2.50
527—Two Cent Letter Co. Multigraphing letters sent out to Secretaries and Delegates.....	6.00	548—Dr. S. J. Lewis Stamps and letters sent out, April and May, 1925, as Councilor....	8.00
528—Lyon-Young Printing Co. Printing 1,000 Programs for annual meeting and 300 Windshield Strips, "Welcome Doctors".....	89.00	549—The Lilley Co. Badges for 1925 annual meeting	124.06
529—Dr. Chas. Usher Expense incurred as Councilor, First District	39.90	550—Mr. J. N. Reisman Office rent for June, 1925.....	21.50
530—Auld's, Incorporated Pen presented to President 1924-1925	3.34	551—Massengale Bulletin System Exhibit Placards for 1925 annual meeting	10.00
531—Southern Press Clipping Bureau Clippings for April.....	5.00	552—Southern Engraving Co. Cuts for July, 1925, Journal—Invoice No. 5274.....	28.08
532—E. K. Large, Postmaster Stamps for mailing Journals....	14.33	553—Dictaphone Sales Corporation Repairing Dictaphone	29.75
533—Addressograph Co. 250 B. plates and ¼-oz. Can Ink	1.84	554—E. K. Large, Postmaster Stamps	30.00
534—Mr. J. N. Reisman Office rent for May.....	21.50	555—Lyon-Young Printing Co. Printing May Journal, Program Woman's Auxiliary, Printing Amendments to Constitution and By-Laws, 10,000 Envelopes, less ad for April and May, \$15.00...	466.48
535—Dr. J. O. Elrod, President Honorarium	150.00	556—Dr. M. M. Head Expenses as Councilor for Sixth District	48.75
536—C. W. Roberts Delegate to A. M. A. meeting Atlantic City	100.00	557—Allen H. Bunce, M.D. Salary as Secretary-Treasurer for June	150.00
537—Allen H. Bunce, M.D. Delegate to A. M. A. meeting Atlantic City	100.00	558—Miss Martha Irwin Salary as Executive Secretary for June	125.00
538—Mr. Colquit Pearson Taking charge of Scientific Exhibit at 1925 meeting.....	35.00	559—Union Envelope Co. 25,000 Envelopes for mailing out Journal	195.96
539—Allen H. Bunce, M.D. Salary as Secretary-Treasurer and Editor for June.....	150.00		

560—American Medical Association 1925 A. M. A. Directory.....	12.00	580—Dictaphone Sales Corporation August Service Contract.....	1.70
561—Lester Book & Stationery Co. Ink, Carbon paper and second sheets	7.85	581—Southern Press Clipping Bureau Clippings for July.....	5.00
562—Mr. J. N. Reisman Office rent for July, 1925.....	21.50	582—Mrs. Irene H. Snyder Stenographic Service, 1925 meeting .....\$428.10 Less: Clerk May 16, 1925 150.00	278.10
563—Fulton County Medical Society Telegrams to Atlantic City. Re: 1926 A. M. A. meeting advanced by Fulton County Medical So- ciety	125.00	583—Southern Engraving Co. Cuts for John Archbold Memorial Hospital, September, 1925, Jour- nal	13.48
564—J. P. Stevens Engraving Co. 1,000 Letterheads and 1,000 En- velopes for Dr. Frank K. Boland, President	35.60	584—Allen H. Bunce, M.D. Salary for August as Secretary Treasurer	150.00
565—Dictaphone Sales Corporation 4 Motor Springs; 2 Oil Wicks; July Service Contract.....	2.20	585—Miss Martha Irwin Salary for August as Executive Secretary	125.00
566—Lyon-Young Printing Co. Printing June issue of Journal, 1925	414.20	586—Mr. J. N. Reisman Rent for September, 1925.....	21.50
567—Southern Press Clipping Bureau Clippings for June.....	5.00	587—Mr. Benj. F. Stovall Multigraphing form letters sent to 165 advertisers	6.60
568—Two Cent Letter Co. Letters sent out to delinquent members by Dr. Boland, President	2.50	588—Southern Press Clipping Bureau Clippings for August.....	5.00
569—Southern Engraving Co. Cuts for Dr. O. R. Thompson and Dr. L. L. Whidden.....	26.82	589—Lyon-Young Printing Co. Printing August, 1925, Journal..	494.05
570—E. K. Large, Postmaster Postage for mailing Journals....	10.00	590—E. K. Large, Postmaster Postage for Mailing Journals...	10.00
571—Russell Electric Co. One electric fan.....	10.50	591—E. K. Large, Postmaster Stamps	30.00
572—The Donaldson-Woods Co. Cards sent to delinquent members	3.50	592—Allen H. Bunce, M.D. Salary for September as Sec'y- Treasurer	150.00
573—E. K. Large, Postmaster Stamps	30.00	593—Miss Martha Irwin Salary for September as Execu- tive Secretary	125.00
574—Allen H. Bunce, M.D. Salary for July, Sec'y-Treasurer	150.00	594—Cash Registering 137 letters to delin- quent members and return post- age	15.00
575—Miss Martha Irwin Salary for July, Executive Sec'y	125.00	595—Dixie Seal & Stamp Co. One Stamp—Notice of 1925 meet- ing Southern Medical Association	2.00
576—Mrs. F. W. Goodroe Operating Addressograph for June, July and August.....	19.00	596—Underwood Typewriter Co. Repairing typewriter	7.50
577—Lyon-Young Printing Co. Printing July Journals, Councilors Stationery ...\$538.98 Less: one-half Davis- Fischer ad .....\$3.75 Their June and July ads .....15.00	18.75	597—Addressograph Co. Adjusting addressograph machine	3.11
578—Mr. J. N. Reisman Rent for August, 1925.....	21.50	598—Lester Book & Stationery Co. Scratch pads, copy holder, rubber bands, Gem clips.....	5.05
579—E. K. Large, Postmaster Postage for mailing Journals....	10.00	599—Mr. J. N. Reisman Rent for October, 1925.....	21.50
		600—Lyon-Young Printing Co. Printing September, 1925, issue Journal	494.45

601—E. K. Large, Postmaster Postage for mailing Journals....	10.00	621—E. K. Large, Postmaster Stamps	30.00
602—E. K. Large, Postmaster Stamps	30.00	622—Allen H. Bunce, M.D. Salary as Sec'y-Treasurer for December	150.00
603—Southern Press Clipping Bureau Clippings for September.....	5.00	623—Miss Martha Irwin Salary as Executive Secretary for December	125.00
604—Allen H. Bunce, M.D. Salary as Sec'y-Treasurer, Octo- ber	150.00	624—Bryan & Middlebrooks, Attys. Re: Bird vs. Dr. R. D. Jones, cost in case.....	75.00
605—Miss Martha Irwin Salary as Executive Secretary for October	125.00	625—E. K. Large, Postmaster Postage	30.00
606—Donaldson-Woods Co., Printers Printing cards to send delinquent members	6.00	626—Bryan & Middlebrooks, Attys. Fee for 1925 as Attorneys for Association	1,250.00
607—E. K. Large, Postmaster Postage for mailing Journal.....	10.00	627—Lyon-Young Printing Co. Printing December issue of Jour- nal	519.30
608—Mr. J. N. Reisman Rent for November, 1925.....	21.50	628—Miss Ethelene Hale Extra work stenographer.....	12.50
609—Bryan & Middlebrooks, Attys. Attorney's fee for Mr. Faust of Greensboro in Re: Lynch vs. Gheesling	50.00	629—Mr. J. N. Reisman Rent for January.....	21.50
610—Lyon-Young Printing Co. Printing October Journal, \$494.45 Printing 1926 Membership cards	\$17.50 511.95	630—E. K. Large, Postmaster Postage for mailing Journal.....	16.26
611—Mr. Benj. F. Stovall Multigraphing letters sent to all eligible doctors in state who are not members; Letters to County Secretaries Re: 1926 meeting; To obtain new advertisers.....	26.00	631—E. K. Large, Postmaster Stamps	30.00
612—E. K. Large, Postmaster Stamps	30.00	632—Dixie Seal & Stamp Co. Rubber stamp—Subscription ex- pires with this issue and "1926"...	2.00
613—Mrs. F. W. Goodroe Operating Addressograph, Sep- tember, October and November..	27.50	633—American Medical Association 30 copies, "A Manual of Sugges- tions for the Conduct of Periodic Examinations of Apparently Healthy Persons"	3.25
614—Allen H. Bunce Salary as Sec'y-Treasurer for November	150.00	634—Dowman-Wilkins Co. Printing Advertising order blanks	20.00
615—Miss Martha Irwin Salary as Executive Secretary for November	125.00	635—Southern Press Clipping Bureau December clippings	5.00
616—Mr. J. N. Reisman Rent for December.....	21.50	636—Lester Book & Stationery Co. Second sheets, white bond paper, 1926 membership book.....	11.40
617—Southern Engraving Co. Cut used in Drs. H. W. Birdsong, M. A. Hubert and G. O. Wheelchel paper for November issue.....	4.85	637—Mr. Benj. F. Stovall Multigraphing "Nine Reasons Why Physicians Should be Mem- bers of Association and Letters for Secretary and President, De- linquent Members	18.45
618—Mr. B. F. Stovall Multigraphing letters sent to each county Secretary, Re: 1925 Direc- tory	4.00	638—Allen H. Bunce, M.D. Paid Telegrams Re: 1926 meet- ing and Dry Milk Co.....	42.82
619—Southern Press Clipping Bureau October and November clippings	10.00	639—Allen H. Bunce, M.D. Salary as Secretary-Treasurer for January	150.00
620—Lyon-Young Printing Co. Publishing November issue Jour- nal	496.15	640—Miss Martha Irwin Salary as Executive Secretary for January	125.00
		641—Addressograph Company 250 B. Plates for Addressograph	.84

642—J. N. Reisman Rent for February.....	21.50	666—Business Cartoon Service Six 2" cuts for Journal.....	7.50
643—Benj. F. Stovall Multigraphing letters for Com- mittee on Health and Public In- structions	2.50	667—Lester Book & Stationery Co. Typewriter Ribbon, Brush, Writ- ing Fluid, Paper and Paper Clips	4.30
644—Lyon-Young Printing Company Printing 2,000 Journals, January issue	482.40	668—Benj. F. Stovall Multigraphing Letters to Doctors in Fourth District.....	4.20
645—Southern Press Clipping Bureau Clippings for January.....	5.00	669—J. N. Reisman Rent of Office for April.....	21.50
646—E. K. Large, Postmaster Stamps	30.00	670—Lyon-Young Printing Co. Printing March Journal and 3M Reprints, page 122.....	548.50
647—Miss Ethelene Hale Extra clerical work, 8½ days....	25.00	671—Southern Press Clipping Bureau Clippings for March.....	5.00
648—Mrs. F. W. Goodroe Operating Addressograph Decem- ber, January and February.....	30.00	672—Dr. E. C. Thrash Expense—Delegate to American Medical Association, Dallas, Tex.	100.00
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652—E. K. Large, Postmaster Postage for mailing Journals....	15.00	May 25, 1925 Check H. F. Wilkins, M.D., St. Louis, Exhibit Space for Aloe & Co., St. Louis—Meeting 1925— Returned, Protested	32.86
653—E. K. Large, Postmaster Postage for mailing Journals....	10.00	May 25, 1925 Check Alex H. Beazley, M.D., Crawfordville, Taliaferro County, Returned Unpaid	15.00
654—Southern Press Clipping Bureau Press Clippings for February...	5.00	June 2, 1925 Check W. J. Dickson, M.D., Re- becca, Returned Unpaid, Insuffi- cient Funds	5.00
655—J. N. Reisman Rent for March.....	21.50	March 4, 1926 Difference in Check of Fulton County Medical Society Credited as \$125.00 when it should have have been credited as \$120.00— difference charged back to Ac- count	5.00
656—Townley Printing Co. Eight Volumes Journal of the Medical Association Bound and Stamped	20.00	March 8, 1926 Voucher of Iowa State Library, Des Moines, Iowa, deposited as a check—check was paid and Voucher returned and charged to Account	7.55
657—Lyon-Young Printing Co. Printing Journals for February..	538.35	Exchange Charges Paid to Fulton National Bank, Atlanta, from May 1, 1925, to April 30, 1926..	13.10
658—Dowman-Wilkins Co. Stationery and Letterheads.....	76.75		
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664—Allen H. Bunce, M.D. Salary as Secretary-Treasurer for March	150.00		
665—H. L. Rowe Salary as Executive Secretary for March	125.00		
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Original Articles

MODERN CONCEPTIONS OF INFECTIVITY*

PAUL EATON, M.D.

Augusta

One of the greatest responsibilities resting on us is that of seeing that advances in medical knowledge are brought to the attention of the profession at large. In times past there has been a lamentable conservatism on the part of the profession with regard to scientific discoveries, and this has done its reputation much harm. Many of you can recall the uphill fight that even so remarkable a thing as diphtheria antitoxin had to establish itself.

The beneficial influence of the frequent gathering together of medical men in medical societies is to be noticed in the great modification of that conservatism. The value of the measurement of blood-pressure was much more quickly recognized, and the new discoveries concerning diabetes and scarlet fever are being accepted with gratifying rapidity.

When we speak of the contributions of medical research we must be careful to avoid the mistake of assuming that these can come only from laboratories. While I would not for a moment minimize the importance of the laboratory, I must insist on the great value of much work that has been done and is being done outside of laboratories.

During the past few years there has been an enormous expansion of our knowledge of

the acute infectious diseases. This has been due largely to co-ordinated activity in three distinct fields, viz.: laboratory research, clinical research, and public health administration. Clinical and laboratory research are, of course, mutually dependent, and the rapidity with which public health administration can make use of their discoveries depends on the rate at which the public is educated by the general practitioner. For although this is certainly an age of specialization, it is still true that the man in general practice is the one to whom the public looks for education in medical matters. The public health administrator can go no faster than his public will let him.

A vast amount of work has been done in the laboratory and in the field on the subject of immunity. This in turn has had its influence on our ideas of infectivity, for these two phenomena are, of course, different phases of the same thing. Some idea of the progress which has been made may be gained from a consideration of our present ideas of two diseases which have been the subject of much study, measles and scarlet fever.

The causative agent in scarlet fever has been definitely located within the past two years, and a mode of treatment based on this new knowledge has proved gratifyingly successful. Within the past few months a similar announcement has been made with respect to measles but this remains to be corroborated. A point of resemblance in these two diseases is that they are believed to be transmitted through the secretions from mucous surfaces, that is, from the secretions

*Read before the Medical Association of Georgia, Albany, Ga., May 12, 1926.

from the eyes, nose, mouth, or ears. The long debated question of the infectivity of scales from the skin in scarlet fever seems to have been settled in the negative, which requires the assumption that the instances in which the scales were supposed to have been responsible for infection have in reality been cases in which there was an unusually long persistence of the virus in the mucous secretions, in other words a carrier state.

A great difference in the infectivity of these two diseases, that has long been noticed but never satisfactorily explained is the fact that a much larger proportion of those exposed to measles will be infected, than of those exposed in approximately the same way, to Scarlet Fever. Two possible explanations have been offered to account for this. One explanation is that there may be a difference in the resistance of the two viruses to cold and dryness. We know that some organisms will survive for a long time in the ice-box, while others perish very soon after being removed from the temperature of the body. It might be that the virus of measles is very resistant to changes of temperature and that of scarlet fever very slightly so. If for example the virus of scarlet fever could survive ordinary room temperature for but five minutes, while that of measles could survive five hours, this difference would go far in explaining the observed difference in infectivity.

The other possible explanation relates not so much to the virus as to the host, and has to do with the ability of the latter to destroy some kinds of invaders while it is absolutely unable to destroy certain others. For instance it takes from seventy-five to one hundred millions of the ordinary pus-forming staphylococci to cause a furuncle in a normal body. Any smaller number will be very likely destroyed by the combined action of the bactericidal power of normal serum and the phagocytic activity of the white cells. Much smaller numbers of other organisms suffice to set up infections and we say of them that their virulence is greater. And there are, we know, certain germs whose virulence is so great that the normal body has absolutely no resistance against them. For example a single anthrax

germ or a single plague germ introduced into the body of a normal rat or guinea-pig is able to kill it. The germ multiplies unchecked and overcomes the host.

Now, while measles rarely cause death directly it may be that the virus which causes it is one against which the normal body has no resistance but can develop a resistance within a comparatively short time. On the other hand in the case of scarlet fever it may be found that the normal organism has some power to combat the virus and can dispose of it provided it is not introduced into the body at too fast a rate.

This hypothesis is strongly suggested by the observations of Dudley who studied epidemics of scarlet fever and diphtheria in a boys' school in England. He found that carriers of these diseases did not spread them in the casual contacts incurred by students in the class-room, or in the playground, or even in the longer contacts involved in sleeping in the same dormitory, provided in the latter instance the susceptibles were separated from the carriers by a distance equal to or greater than two arm's lengths. The longer contact involved, however, in sleeping in cots closer than this was followed very regularly by transmission of the disease. He used the expression, velocity of infection, to express the idea that the normal body could dispose of certain infectious matters at a more or less definite rate.

The practical application of these observations is the method of caring for cases of acute infections used in this country for a long time by Richardson of Providence, R. I. His isolation of these cases in the hospital consists in separating the beds containing the patients a distance somewhat greater than two arms lengths and giving the same attention to aseptic handling that would be given by any careful surgical nurse. It is something of a shock for the visitor who is accustomed to a shot-gun quarantine of such cases to see measles, scarlet fever, diphtheria, whooping cough, mumps, polio, and typhoid, all in the same ward, but the results justify the method for the percentage of cross-infection is no greater than that observed in institutions using the older methods.

There are no startling advances to be noted in the knowledge of diphtheria. When diphtheria antitoxin was first introduced many optimistic souls believed that we had a means of wiping out the disease and they were correspondingly disappointed to see as years passed that the disease occurred just about as often as it had before, although the mortality was greatly reduced. A very slight consideration will show that this is only what might be expected for very few of us would expect an improved method of treating broken legs to diminish the number of broken legs needing treatment. Toxin-antitoxin immunization checked up by the Schick test is causing a diminution in the incidence of the disease and may ultimately stamp it out if applied to the right fraction of the population. Since 72 per cent of all deaths from diphtheria are of those under six years of age it is plain that the application of this treatment to school-children alone cannot settle the matter.

The old teaching as to the relative immunity of the child under one year of age is pretty well exploded by this time but a little more won't hurt. Most of the older text-books on pediatrics stated definitely that there was such an immunity. Park's figures from Schick tests seemed to mean the same thing. What are the facts? Census Bureau figures indicate that more than 6 per cent of all deaths from diphtheria are of those less than one year old. One death in every sixteen does not seem like a very great degree of immunity. Two and one-half per cent of all deaths from diphtheria are of those less than six months of age. Surely one death in every forty occurring in the half year period when the child is almost absolutely helpless, when everything he touches must be brought to him, when he is almost totally unable to pick up infection for himself, ought to make us blush to think of the credulity that accepted such a naive notion. Of course the child in his first year of life is less likely to be infected but Deacon's figures for Michigan show that out of every hundred who contracted the disease in the first year of life sixty-one died.

The truth about the matter is that the child is born with the same set of immunities possessed by his mother. If she is immune to

diphtheria so will he be. He will lose most of these immunities before he is a year old which may in some measure account for the belief that the second summer is the most dangerous period in his existence. Now Park's work on diphtheria immunity was done for the most part in the city of New York where a majority of the adults are immune to diphtheria. If he had examined an equal number of babies in Vermont or Georgia or any rural community his results would have been different.

All these considerations lead us to the formulation of a new rule concerning the active immunization of children less than one year old. This rule is "Schick the Mother." If she is positive both she and the baby need the toxin-antitoxin. If she is negative the baby does not need the toxin-antitoxin until after it is a year old, roughly speaking.

Speaking generally then we can say that in our present conceptions of infectivity there is less of the notion of the "Evil Eye" than there used to be. All but the most ignorant know now that there is no danger in the mere looking at a person suffering from typhoid fever, and that wind-borne cases of measles and scarlet fever are medical curiosities if not figments of the imagination.

The severity of quarantine regulations is in inverse proportion to the size of the community. That is Podunk is much more excited over a case of smallpox than Paris would be, for Paris knows what to do for smallpox, and is willing to do it.

The scarcity of contagious disease hospitals is no longer an excuse for denying sufferers from these diseases the benefits of hospital care for we know that they can be treated in general hospitals with perfect safety.

DISCUSSION ON PAPER OF DR. EATON

Dr. J. P. Bowdoin, Adairsville: I know that you have all appreciated very much this splendid paper of Dr. Eaton's. I think that very likely it brings you some ideas you have not had before. I believe in opening the paper he referred to education, the education of the people, and the education of the doctor—our knowledge being passed on. This is essential. We have many sources of education; some of our education is good, some I would like to caution you against. Many of the manufac-

turing houses that offer us things they wish us to use offer us a great deal of education. I would like to have you take this with a grain of salt, or quite often with many grains of salt. The question has been brought out in the discussion of Dr. McAliley's paper and in the discussion on toxin-antitoxin that occasionally you may have to take a back track on these things unless you are absolutely sure of your ground. It pays to be sure—to know; the public is ready and anxious for education. The family physician, the home doctor, is the man to give this education. The things the doctor has been talking about rest almost entirely in the family physician, and I do hope that from this meeting you will carry back home the ideas and thoughts that we have had expressed here along this line this afternoon. The discoveries the doctor has mentioned sometimes seem almost miraculous. We are right now, it seems, on the eve of the announcement that we are going to be able to control measles. I hope and trust so; we will wait and see. He has told you that smallpox has been controlled, and that diphtheria can be. These are not miracles; they are simply carrying out laws that have been laid down and scientific men are finding out. The logic of Dr. Eaton's paper, I think, is sound and cannot be controverted. He speaks of the reason why certain things happen. The poison of certain of these diseases is more potent than that of others, but I think that we also have to consider the host and his physical condition and resistance as well as the virulence of the particular poison that we have to contend with. In other words, I believe that physical fitness has something to do with whether or not we can throw off disease.

I was very much pleased to hear Dr. Eaton say what he did about quarantine. We have two dramatic things that happen in our communities: one is a mad dog, and the other smallpox. The scare about smallpox is dying out; I have never taken a smallpox patient out of the room in which he was taken sick or taken him away from his family. If I were to remove him I sometimes think the best place to take him would be the most public square; there is no sense in having smallpox; the only thing we need to do is to teach people that they must be vaccinated. I have seen forty-three negroes exposed to smallpox in a small house and not one of them develop it. Every one of them was vaccinated at once and revaccinated the third day, and no infection took place.

Dr. T. Bolling Gay, Athens: Dr. Eaton has covered a world of detail in a very concise

manner. He briefly referred to Corona's work in Italy. Corona discovered a small coccoid organism which occurs in pairs, and which he has been able to put through all the tests that the Dicks and Dochez have in scarlet fever. He has been able to develop a protective serum, and his work has been accepted throughout Italy. McCallum has taken up the study of this work, and one of his workers has recovered this organism from measles. If this is true we are on the verge of discovering a new organism, a very small one, which grows on a type of media that is different from any we have. As McCallum suggested, it is intriguing to think that we have these minute organisms causing disease, and to think that we do not know anything about them until they do cause disease, and to think of the millions of organisms that exist that do not produce disease and about which we will never know anything because we do not see their work.

Another point of great interest which Dr. Eaton brought out is the question of treating communicable diseases in the same hospital, and in the same ward.

Another fact was that the child under one year is susceptible to diphtheria, and that it has the immunity of its mother. Richardson's work in Rhode Island has not been carried out and used in other contagious hospitals as yet. There are many reasons why this system of treating contagious diseases appears to the average man who has worked in contagious hospitals to be dangerous. The average nurse in the contagious hospital is apt to be very slovenly in her work, and the Irish scrub-women we see, particularly in New York, are very careless. It is not unusual to see them stop at one bed and help feed a child, and then go on to another. I do not know whether Dr. Eaton advocates the cubicle system in the same ward, or whether he advocates just putting the beds at a certain distance apart and using the ordinary surgical technic in caring for the patients. The cubicle system is certainly valuable in general hospitals where contagious cases are segregated to one ward, and the nurses are impressed with the surgical technic they are to follow.

Dr. W. N. Adkins, Atlanta: I venture to say that this is the most interesting and instructive symposium on pediatrics that this Association has ever attended, because it is along the lines of protective medicine. I remember our dear old friend Dr. Clark said that the medical profession was the only one that sought to destroy its own livelihood. That is more and more true each day. I have thoroughly enjoyed every paper read this af-

ternoon, and Dr. Eaton's paper has been particularly interesting and instructive.

Along the lines of quarantine I wish to offer a little criticism of the City of Atlanta. In 1915 and 1916 I happened to be the medical examiner of the public schools. We had a tremendous epidemic of measles and whooping cough. I went to the Board of Education and begged that they request the Board of Health to institute quarantine against measles and whooping cough, which was not done then and is not done now. The Board of Health did nothing, but the newspapers wrote editorials on it. Whooping cough and measles are reportable, but not quarantinable. Patients with whooping cough wander the streets with no restrictions. Far be it from me to question the statement of Dr. Eaton's about these patients with contagious diseases being two arms lengths from each other, but it goes without saying that a patient with one infection is more subject to another than if he did not have the primary infection. Measles and whooping cough should receive, to say the least, as much care as diphtheria and scarlet fever. So far as diphtheria is concerned, in a paper I read several years ago I started off by saying that other things being equal there was no reason why any patient developing diphtheria should ever die. We have the toxin-antitoxin which is a real preventative, and antitoxin the specific if given early and in proper doses.

Dr. Joseph Yampolsky, Atlanta: I wish to say a word about Dr. Eaton's paper because it is one of the few in which English has been used in a way which we seldom hear. I do not know Dr. Eaton, but I believe that a dissertation of that kind will make the sleepiest sleepers open their eyes and listen. I do not agree with everything he said, and I do not believe that these patients should be put as close together as Dr. Richardson has described and Dr. Eaton advocates. I am willing to argue on questions of that kind, but I do not have to agree with him. I think every man here will say he was glad to hear the paper, but will not go home and put one patient with measles and another with whooping cough two arms lengths apart. It may take ten or twenty meetings to convince them that it is right. We have had too many old ideas chewed over on this floor, and we are glad to have something new brought out and championed in South Georgia. I venture to say also that if Dr. Eaton would take a series of cases and do a Schick test on them he might be disappointed, as many other men have been. We all have statistics, and the men figure things according to the way their statistics come out. Sometimes they may be

right, and sometimes wrong.

I can say that I think these pediatric symposiums are the things we need at our meetings.

Dr. W. A. Mulherin, Augusta: I wish to congratulate Dr. Eaton on his very timely and interesting paper. He covers the advanced ideas on contagion in a most logical and sensible manner. His points are in keeping with the most approved ideas current in medical circles, where contagion is given special study. His paper teaches us that many of our sanitary laws, now in operation, are obsolete and should be wiped out and rewritten.

Scarlet fever, diphtheria, smallpox, chicken pox, etc., are very little more contagious than typhoid fever, and yet we put people to great inconvenience, and as a result do not get the ideal co-operation that is necessary in controlling these diseases. As mentioned by Dr. Eaton, we all know that the scales in scarlet fever are not contagious. It is generally known, today, that the scaling is due to the inflammatory effects of the toxins on the skin, and the only thing that is contagious are the streptococci of scarlet fever, found in the throat and not in the skin.

Richardson of Providence, R. I., is carrying out in his hospital not theoretically, but practically, the placing of patients with diphtheria, scarlet fever, whooping cough, and other contagious diseases in the same ward. It has been demonstrated by him and others that this can be done successfully, provided that surgical cleanliness is carried out. His method is about as follows: If he touches a patient with a contagious disease, he immediately scrubs his hands and changes his gown, the same way as a surgeon operating does when he touches an unsterilized article. In this way he avoids cross infection and does not worry himself about infection being conveyed more than five feet through the air, the beds in his ward being more than six feet apart.

Dr. Eaton well calls attention to an erroneous idea that has been prevalent for some time in our leading text-books, viz., that a child under six months of age does not contract diphtheria. A study of statistics will show that it does and furthermore that the mortality is highest at this age. Instead of encouraging men not to look for diphtheria under six months of age, it should be stressed that this disease does exist during early months and is especially fatal, the younger the baby.

This being a fact, we should be very careful not to allow a baby to contract diphtheria under one year of age. This is best accom-

plished by giving toxin-antitoxin at six months of age. As to the difference in susceptibility of city and rural children to diphtheria Park & Zinger's work in New York City is quite confirmatory. They showed by means of the Schick test that New York children were about one-third as susceptible to diphtheria as children living in the rural districts. The reason for this difference is found in the fact that children in cities have been more or less exposed to diphtheria and have probably acquired the disease in very mild forms, and thereby have acquired a certain amount of immunity.

I agree with Dr. Eaton that contagious diseases can be handled successfully in general hospitals, provided the nurses will carry out the proper technique to avoid cross infection. I would question, however, whether it would be advisable to conduct a contagious ward in a children's hospital, where the soil would be most fertile. Theoretically it can be done, but practically it would be a most difficult and questionable undertaking.

Dr. Paul Eaton, Augusta, (closing): These courteous remarks about my paper are likely to bring my grey hairs in sorrow to the grave. I am reminded of what Mark Twain said about statistics—that there are three kinds of liars, plain liars, damned liars, and statisticians. The remarks I have set down for answer resemble somewhat what the cook said about hash, "You don't make hash, it just accumulates." I have some notes here that have accumulated.

If you have been using the toxin-antitoxin and the Schick test do not make the mistake of saying that a child who has a sore throat has not diphtheria because he gave a negative Schick reaction. It may have been wrong. That can happen.

Dr. Bowdoin may remember that when he and I went to school among the predisposing causes to typhoid fever were noted, health and vigor.

I would like to suggest to Dr. Gay that he had better not let the nurses in the hospital hear him compare them to Irish washwomen.

Seriously, I do not expect that I am entirely right just because everybody is against me. That happens once in a while, but that is not the ground on which I base my beliefs. They are based on solid ground, the ground of scientific investigation. Dr. Yampolsky and I belong on the extreme left, but perhaps not in the same pew. It would be too much to expect to get as drastic a change as that across all at once, new ideas have to be brought up on the bottle, as it were, they do not grow naturally.

THE USE OF DEXTROSE FOR CHILDREN AND A PLEASANT METHOD OF ADMINISTRATION*

W. L. FUNKHOUSER, M.D.

Atlanta

The use of dextrose and candy medication is not the development of twentieth century medicine. In the Homeric period, 950 B.C., honey or the juice of figs was given to young children. In 98 B.C. the Roman physicians smeared honey around the rim of a bowl to disguise the taste of wormwood when it was administered to the young. Saranus, in the second century A.D., gave honey to the newly-born, and added it to goat's milk for infant feeding.

Honey is a mixture of dextrose, fructose, or fruit sugar, and saccharose. The virtue, therefore, of honey is the glucose or dextrose that it contains.

There is little difference between glucose and dextrose. Glucose is a thick syrup containing dextrose and other saccharides made by the hydrolysis of Indian corn, or other starch, with a mineral acid, usually hydrochloric. Dextrose is a granulated powder chemically-pure and is therefore the preparation of choice for administration to infants and young children.

Our ancient forbears did not understand the intricate mechanism of metabolism and, for that matter, neither do we. Nevertheless they were clinicians gifted with the power of observation sufficient to know that the administration of dextrose improved the condition of the child and by giving honey to the newly-born prevented that which we now recognize as inanition or starvation fever.

Our interpretation of the metabolism of carbohydrates is that all starches and sugars are converted into dextrose before being absorbed. Therefore, under normal conditions, there will be found circulating in the blood, dextrose. The reserve is stored in the liver and muscles in the form of glycogen. During the production of heat and energy, the carbo-

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hydrate is especially utilized and, to a much less extent, fat and protein. The carbohydrate is essential not only for supplying heat and energy but for the complete combustion of fat into carbon dioxide and water. If, therefore, there is a deficiency of carbohydrate, the oxidation of fat is not complete; in consequence of which there results, from this partial oxidation, the formation of acetone or ketone bodies.

If there is an insufficient intake of food to supply the energy necessary to maintain body function, the reservoirs have to be called upon. There is sufficient carbohydrate in the form of glycogen stored in the liver and muscles to maintain normal metabolism for about twenty-four hours. After this time, the reserve having been exhausted, the body fat must be utilized. As has been shown, with an insufficient supply of sugar for the complete oxidation of the fat, there will develop ketone bodies. With the combining of these acids, beta-oxybutyric and diacetic, with the circulating bases in the blood there is a corresponding reduction in the alkali reserve. With the reduction of the carbon dioxide combining power of the blood, there develops an acidosis. If, then, there has been any disturbance with the carbohydrate intake or of normal metabolism from disease or any other cause, it is necessary to increase the carbon dioxide combining power of the blood as well as the alkali reserve. It is also essential both to maintain complete fat oxidation in order to prevent the formation of ketone bodies and to supply a carbohydrate for the maintenance of normal metabolism. Dextrose is, therefore, the food of choice, because it is absorbed with less work for the digestive glands and provides the tissues with an ideal substance for counteracting any tendency toward an acidosis.

Any break in the balance of metabolism, irrespective of the cause, will result in an exhaustion of the glycogen, a reduction of the alkali reserve, and the development of an acidosis. It is, therefore, incumbent in all conditions which cause an imbalance of metabolism, that dextrose be administered. One of the effects of disease on the body is to cause a break in normal metabolism which is, there-

fore, an indication for the use of dextrose. This includes all infections, both acute and chronic, colitis, gastritis, and many of the nutritional diseases. While it has no specific influence on the diseased process, it does enable the patient to meet and overcome the invasion of an illness with the least amount of tissue waste and toxemia.

There are symptoms resulting from infectious and non-infectious disease as well as nutritional disturbances which call for the use of dextrose to replace the glycogen lost in the increased demand of metabolism with tissue starvation. Among these are fever, vomiting, diarrhea, acidosis, alkalosis, acetonuria, cyclic vomiting, marasmus, malnutrition, and hypoglycemia. Glucose is indicated as a preventative of post-operative acidosis by giving before and after any operative procedure.

The contra-indication for dextrose is in diabetes, celiac disease, carbohydrate intolerance, possibly in eczema, and when it has been found that it produces intestinal fermentation.

Dextrose may be given by mouth, by rectum, subcutaneously, intraperitoneally, and intravenously, depending upon the urgency in each case. The mouth will be the avenue most frequently used and is by far the easiest method of administration. In relatively few cases will it be found necessary to administer in any other way. A very palatable and easy method of administering dextrose has been in orange juice. By this method a three-fold service is obtained, the intake of dextrose, fluid, and a citrate, but children often refuse the fruit juice as a result of putting something in the orange juice. It seemed, therefore, worthy of an effort to get a palatable and pleasing way of administering dextrose.

Through the courtesy of Mr. E. M. Gordon of the research department of Nunnally and Company, experiments were tried with Merck's granulated dextrose and various flavorings in an attempt to secure a satisfactory candy product. Orange juice, citric acid, and the various oils were used, but the following method and flavoring seemed to give the best product.

To one pint of water three pounds of dextrose are added. This is cooked down rather

rapidly to a temperature of 325° F. If cooked too rapidly, there is danger of scorching. This is poured out on a marble slab that is absolutely dry and clean. Just before the syrup is poured out, the slab should be wiped off with a vegetable oil such as cocoanut oil. About one-fourth ounce of orange oil is worked into the candy. The amount of oil has to be governed by its strength. In a warm place the candy is shaped into the desired size, rolled and cut by hand or by a machine, and the stick stuck into the ball. A pound of dextrose will make a pound of candy. Therefore the weight of the lolly-pop less the weight of the stick represents the number of grains of dextrose administered. The method of preparation is so simple that any candy kitchen can easily supply the lolly-pop on demand.

There is no special virtue attached to this method of administering dextrose except that the child, if old enough, welcomes the advent of a pleasant way of taking what we want him to have. The doctor gets a different reception if castor oil, calomel, and soda, may be replaced by something palatable, such as a dextrose lolly-pop. Should we not always, in practicing medicine among children, endeavor to change a wrong psychological attitude of the child toward the physician? Can we not make a more careful physical examination and obtain better results if we have co-operation and make our visit a real pleasure rather than a stormy protest that increases fear and further plants in the fertile brain of the young child seeds of faulty and wrong impressions?

It should be made perfectly clear to mothers that, while the dextrose lolly-pop may be used as a substitute for candy, it has the same objection, namely, that it should not be given to well children except as other candy, not between meals, but as a dessert after the mid-day meal.

Conclusion: Dextrose has a definite function when there is a break in the normal balance of metabolism; it can usually be administered by mouth; and the dextrose lolly-pop is a pleasant method of supplying this deficiency.

DISCUSSION ON PAPER OF DR. FUNKHOUSER

Dr. J. F. Mixson, Valdosta: Dr. Funkhouser has gone well into the question "Why Use Dextrose." The popular use of which is an indication of the fact that we are now looking more on the physiology and less on the pathology of the diseased individual. The tendency of most diseases is to recovery provided there is not too much disturbance of the normal metabolism. Nothing so profoundly disturbs metabolism as starvation and in the sick—in children especially—anorexia or nausea are usually present often to such a degree as to result in an absolute fast.

As Dr. Funkhouser has pointed out, the glycogen reserve is sufficient for only about twenty-four hours of starvation and some form of carbohydrate must be given to prevent an acidosis or ketosis. The carbohydrate is best given in the form of dextrose in any of the various ways mentioned. It is important to remember that water is also needed for normal metabolism and we should see that our patient receives a sufficient amount daily.

I congratulate Dr. Funkhouser for his happy thought of having this lollypop made up for sick children. He has added another to the many tricks needed in the treatment of children.

Dr. W. A. Mulherin, Augusta: It is well to respect the psychology of childhood and if sugar is indicated in the diet it is advisable to give dextrose in a simple and agreeable way, such as the lollypop as exhibited by Dr. Funkhouser. However, it is well to remember that all children do not tolerate sugars well. The tolerance for carbohydrates (sugar and starch) vary in different children. Lollypops made from dextrose or any other sugar will serve a good purpose for some children, but in others they not infrequently cause digestive derangements.

In connection with feeding sweets to children, it might be well to call attention to the fact that sweets are "fillers." By "fillers" is meant a food that will satisfy the appetite, but will not nourish properly. The chief harm from "fillers" is seen when children are fed sweets between meals, no appetite exists for the following meal.

Again it is well to remember that there are two forms of carbohydrates, the soluble (sugars) and the insoluble (starch). The end results of digestion of both of them is the same product—glycogen, which is stored up in the liver. Therefore there is nothing gained by feeding children sweets, instead of digestible starches, such as cereals and breads. Furthermore, it is recognized in pediatric practice

that sugars are especially advantageous from birth to six months of age, and is the carbohydrate of choice, while starches are better suited after this age.

I am not "hard boiled" as regards children eating sweets. I like to indulge them to the limit, but I must confess that I consider sweets as a permissible article of diet, but not an essential one. It has been my custom to tell mothers to give sweets only as desserts, after the child has eaten the proper food that is necessary for its proper growth and development.

I feel quite sure that the lollypop Dr. Funkhouser has presented to us today will serve a very good purpose in cases where sugar is indicated.

Dr. Henry R. Slack, LaGrange: I enjoyed Dr. Funkhouser's paper, and also his lollypop, and on the principle of the greatest good to the greatest number I think the Association should request Dr. Funkhouser to give his formula to Mrs. Dull of the Atlanta Journal, and to the ladies who write for the cooking schools, so that the children can enjoy these lollypops as much as our distinguished president, and the other members of the Association, have enjoyed theirs. They are the best I have had for a long time, and I think it would be well to have the formula published in the paper, or prepared by some good candy maker and put on the market.

Dr. S. T. R. Revell, Louisville: I also have enjoyed the paper. The December 5th issue of the Journal of the American Medical Association contains a very interesting and instructive article by C. W. Edmunds, M.D. and Robert G. Cooper, A.B., on the use of dextrose in cardiac failure. Their experiments and observations were worked out very carefully in laboratory on animals in instances where the heart had ceased to beat. They employed a 10 per cent solution of glucose for the purpose of observing its effect as a cardiac stimulant. Hearts which had remained inactive for as long as two minutes were again made to beat. I have just had under observation an old man who had an acute dilatation of the heart (following an acute infection) blood pressure 90/55 and even with fifty-five drop doses Tr. Digitalis at six-hour intervals for forty-eight hours no appreciable effect could be noted, but after giving him 10 cc of a 50 per cent solution glucose the blood pressure rose, within five minutes 8 mm and on the next day there was a rise of 10 mm. The pressure never going as low as formerly.

We can ill afford not to know that glucose may prove a life saving measure where death is imminent from cardiac failure.

Dr. T. D. Walker, Macon: I wish to thank Dr. Funkhouser for his paper. It is true that dextrose and soda are now given very largely to children, upon the theory that it will cure or prevent an acidosis. This is the thing that I would like to bring out, that the majority of these so-called cases of acidosis are really dehydration rather than acidosis. Whenever the loss of fluid from the body is greater than the intake the serum of the blood decreases. When this occurs normal metabolism is interfered with, kidney function is decreased and the retention of acid sodium phosphate adds to the acidity. In some conditions dextrose is indicated, but if we remember the value of getting in at least one and a half ounces of water per pound each day we will decrease the supposedly number of cases of acidosis.

Dr. W. L. Funkhouser, Atlanta (closing): I think Dr. Mixson brought out a good point in regard to the administration of fluid. However, these children are often vomiting so that they cannot take much fluid, and for this reason the dextrose lollypop has an advantage as it is taken slowly, is not brittle, cannot be chewed so dissolves slowly and this frequently allays the thirst, and often the child can then take small amounts of water without disturbance.

TREATMENT OF EARLY SYPHILIS

J. E. MOORE AND A. KEIDEL

Johns Hopkins Hospital Bulletin, July, 1926, p. 1.

A plan of treatment for early syphilis is presented, the essential features of which are (1) the treatment shall be continuous, consisting of courses of arsphenamine alternating with courses of mercury by inunction (or insoluble bismuth salts intramuscularly) plus potassium iodide; (2) treatment shall be carried out under detailed serologic control; (3) treatment shall be prolonged without intermission for one year after the blood and spinal fluid have become and have remained completely normal.

BASAL METABOLIC RATE IN TOXIC GOITRE*

T. C. DAVISON, M.D. AND
HAL M. DAVISON, M.D.
Atlanta

Basal metabolism is the heat produced by a person at perfect rest, after a twelve to fifteen-hour fast. From the laboratory standpoint it is, in most instances, measured by the amount of oxygen consumed by the patient in a given length of time as compared to a standard for a normal person of the same size, age, and sex. This standard, by most operators, is considered as ("0") zero and results of the test are expressed in plus or minus readings according to whether the reading is above or below the standard normal. However, any reading between minus ten (-10) and plus ten (+10) is accepted as normal. It is measured in calories per hour per square meter of body surface and the average normal for adults is considered to be 35 to 40 calories.

The machines used in measuring the oxygen consumed are called basal calorimeters. Within the last few years they have been very much simplified, and, at present, the technique of their operation is easily understood. The writers have used the Jones, the Krogh, and the Sanborn-Benedict machines in the cases referred to in this paper. For description of machines, technique of operation, and allied information, readers are referred to the excellent book of DuBois (1) and the comprehensive monograph of McCann (2). We desire, however, to call attention to the following facts not usually mentioned in books. To obtain a correct reading, which is often very difficult, the operator must thoroughly understand the machine and must always take into consideration the temperature of the patient. The best way for the operator to understand the sensations of the patient, which is very important, is to have a reading taken upon himself. There are many details that would otherwise escape his attention. For instance, when the nose is closed by a

clip, even though the mouth is well open, the average patient, accustomed to breathing through the nose, experiences a sensation of suffocation. Since we discovered this fact, the number of readings necessary for accuracy has been decreased by instructing the patients to close the nose tightly with two fingers and breathe through the mouth for four separate intervals of five minutes each, upon the day preceding the test. Also, whenever possible, every patient is shown the basal calorimeter and the oxygen tank, and the object and technique of the test is explained in detail. This prevents the natural fear of being put to sleep that so many experience upon seeing the oxygen tank for the first time. Some patients co-operate better if they are not disturbed in any way during the test; while others do better if talked to in a quiet, reassuring voice, held by the hand, or touched on the head or cheek,—one, or all three being necessary in different cases. These details, seemingly insignificant, avail much in themselves toward obtaining a successful reading. Some patients give an accurate reading only upon remaining in bed at home, or in the hospital; while others may come to the office. The operator must also take in consideration that muscular activity, (7) mental and emotional changes, temperature changes, (5) (10) the specific dynamic action of food, medications affecting the general metabolism or mental activity, (6) menstruation, blood dyscrasias, certain metabolic disorders such as diabetes melitus, the active state of acromegaly, and active cardiac disease, change in varying degrees a basal metabolic rate to a non-basal rate. These conditions must be considered in taking every reading.

Although the basal metabolic reading has been used in the diagnosis of several diseases, (8) its principal value is for the diagnosis of thyroid conditions. Not the least of its importance lies in the differentiation of hyperthyroid conditions as a (9) (11) whole from neurasthenia, hysteria, effort syndrome, and allied disorders simulating in their symptomatic manifestations the clinical picture of hyperthyroidism.

We make a basal metabolic reading on all cases of goitre and this has taught us that

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the degree of toxicity cannot be accurately estimated clinically (12) (13) (14). It has been our experience, corroborated by that of others, that many cases of goitre present nervous manifestations similar to those of hyperthyroidism, but give a basal metabolic reading below the normal and are relieved of these symptoms by bringing their reading to normal through the use of thyroid extract. Other cases of hyperthyroidism, apparently quiescent, are shown by this test to be in the danger zone of toxicity.

The term "goitre" has been applied to all enlargements of the thyroid gland. Our discussion will be confined to the toxic goitres, or cases of thyrotoxicosis.

This condition is divided into two general types, toxic adenoma, and exophthalmic goitre. As a rule, these two types are easily differentiated. Exophthalmic goitres usually present symmetrical smooth enlargements while adenomata are nodular and frequently unilateral. In the exophthalmic type, symptoms come on coincidentally with the enlargement unless they develop in a case of pre-existing colloid goitre. This type of goitre may occur at any time of life. The toxic adenomata develop, as a rule, in early middle life, or later, and almost always develop from a non-toxic adenoma, which may have been present for a long period of time. Plummer has found that twenty-five per cent of the cases of adenomatous goitre presenting themselves at the Mayo Clinic prove to be of the toxic type; however, the toxic symptoms in these cases had not developed until the goitre had been present for an average of sixteen years. The course of exophthalmic goitre is characterized by remissions while that of the toxic adenoma is not. Exophthalmos is almost always present in the type of goitre of that name, whereas, there is seldom more than a suggestion of a stare in the other type. The pulse pressure is high in the exophthalmic type, but this is not characteristic of the toxic types. From the standpoint of treatment, it must be borne in mind that often the two types exist coincidentally.

In such a case, the configuration of the goitre would be characteristic of adenoma, but the differentiating points mentioned above

would suggest the presence in the gland of hyperplasia characteristic of exophthalmic goitre and the condition should be treated as such.

Exophthalmic goitre may develop without previously recognized disease in the thyroid or it may develop upon the background of a colloid goitre, the latter type usually beginning after the age of forty. Comparatively speaking, it develops faster than the toxic adenoma and the basal metabolic reading in it is higher. The basal metabolic rate is not only somewhat prognostic, but is an aid in deciding upon the method of treating the individual case. Every case of exophthalmic goitre is treated by physiological rest and by (3) (4) some form of iodine. A basal metabolic reading is made during the first examination of the patient, before any treatment is begun, and later at regular intervals, to determine the progress of the disease. If there is sufficient improvement, as shown by both a fall in the basal metabolic reading and an improvement in the clinical symptoms, a thyroidectomy is resorted to. However, if the basal metabolic rate is not materially lowered, it is unsafe to perform a thyroidectomy and a ligation of one or both superior poles is done as a preliminary measure, to be followed later by the radical operation. Iodine is always administered after the operation. Following the operation in this type of goitre, the basal metabolic rate usually rises for a short time, and then gradually falls, over a period of several weeks, till it approximates normal. It is impossible to follow these phases of toxicity without the basal metabolic reading, and in our experience this reading gives an accurate index to the condition of the patient in almost every case of exophthalmic goitre. This is not true to such an extent in cases of toxic adenoma. Occasionally we see cases on the verge of a thyroid crisis, in which the basal rate is steadily rising. In other cases the basal rate is steadily falling following a crisis. Therefore, it is unwise to operate without sufficient observation and repeated readings to determine the immediate course of the case.

It has already been stated that in toxic adenomata the symptoms develop more slowly and that the basal metabolic rate is compara-

tively lower than in exophthalmic goitre. The change from a simple adenoma to a toxic one may be very slow and insidious and remains often unnoticed until the myocardium is permanently damaged, and the patient is driven to consult the doctor because of symptoms of cardiac decompensation,—palpitation, arrhythmia, dyspnoea, and edema,—one, or all. Other symptoms of hyperthyroidism are, of course, present by this time. It is in this type of goitre, especially, that the basal metabolic rate is often not a true indication of the seriousness of the condition in the individual case and we must depend much more upon the whole aspect of the case rather than upon the basal metabolic reading alone.

Following thyroidectomy in adenomata the basal metabolic rate usually drops to normal more promptly and is not likely to have the marked post-operative rise as is often seen in the exophthalmic type. After operation, as well as before, the internist and the surgeon should observe these cases together till they have entirely recovered. We make it a rule to do repeated basal metabolic readings at intervals to determine the progress of the case and to direct further treatment (15). This is necessary because some cases, apparently entirely relieved clinically, are found to be still mildly toxic and to require treatment for an extended period of time.

The inserted graphic charts illustrate the basal metabolic changes in the two types of toxic goitre, under different forms of treatment.

SUMMARY

The authors believe that:

1. Basal metabolic readings are essential to differentiate between thyrotoxicosis and other disorders simulating this condition.
2. The degree of toxicity of goitres cannot be accurately estimated clinically and a basal metabolic reading should be made in every case of thyroid enlargement.
3. They compare the two general types of goitre, the exophthalmic and the adenomatous have been compared, and attention has been called to the existence of a mixed type in which both occur coincidentally.
4. The basal metabolic reading in cases of

exophthalmic goitre is, as a rule, an accurate index to the degree of toxicity. It is not only diagnostic, but somewhat prognostic, and indicative of treatment.

5. The basal metabolic rate in adenomatous goitre is comparatively lower than in the exophthalmic type and is of less value in determining the seriousness of the individual case.

6. Following operation, basal metabolic readings should be done at intervals on all cases to direct treatment and to determine if they become normal and remain so.

35 Doctors Bldg.

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DISCUSSION ON PAPER OF DRS. DAVISON

Dr. Charles E. Waits, Atlanta: Our time is too limited to discuss fully all of the important points mentioned in this paper. However, I wish to stress further some points concerning the metabolic test.

A reliable metabolic reading, especially in the extremely toxic patient, requires much time and patience on the part of the technician, and unless one who attempts this phase of thyroid study is especially keen and exacting in detail the result of the test is often worthless. To understand thyroid disease, the mechanism of the metabolimeter, when a leak occurs, and to be able to compute figures accu-

rately are some of the items essential to a reliable basal metabolic reading.

No thyroid study is complete without a determination of the basal metabolic rate.

Mention has been made of the various types of goitre. The two common types which require surgery for their relief are the adenoma which may or may not be associated with hyperthyroidism and exophthalmic goitre. To be able to recognize the various types of goitre is very essential to successful management.

Since Plummer's discovery of the great value of Lugol's Solution in controlling hyperthyroid reactions in certain types of goitre, there has been much confusion concerning iodine therapy in the treatment of goitre. Perhaps the most common mistake made in iodine administration is the use of too large dosage and giving over a longer period than is necessary.

In exophthalmic goitre, Lugol's solution seems to have no permanent curative benefit. However, its effect in terminating a hyperthyroid crisis and preventing post-operative reactions is most striking. As a general rule the maximum benefit from Lugol's Solution comes within twelve (12) days from the beginning of its administration. We have observed some benefit from Lugol's Solution in certain types of toxic adenomata. In the non-toxic adenoma, it seems to do more harm than good.

Dr. E. C. Thrash, Atlanta: The thyroid gland is the dynamo that governs internal secretions. Because of the fact that we were once sea dwellers we were in an environment where we were in contact with much iodine, and in view of that fact it became a very important part in our metabolic process. Because we have come from the sea, and have become so far removed from it, and because on account of various earth disturbances we were removed more rapidly than our metabolic processes could adjust themselves to the changed conditions, the thyroid gland being the adjuster of the iodine, this is the reason we have so much dysfunction of this gland. If we knew how to regulate the iodine in all probability our thyrotoxicosis would be minimized. We cannot excel nature, and have to do the best we can in handling the disturbances where we have not yet had time to adjust ourselves to conditions.

We have approached this problem in recent years by the administration of iodine, and we may arrive at the place where instead of having to treat thyrotoxicosis we can prevent its development. In the treatment besides iodine we also have radium, the Roentgenray, and surgery. Proper rest and nourishment play

a large part. The administration of iodine will aid in the readjustment, and will frequently put the patient in a position where surgery is not necessary. When the patient has gone beyond this point the administration of iodine is suitable only for preparing him for operation later. I think the Roentgenray is one of the most useful agents at our command. I believe its field of usefulness has not been fully developed, that we have only scratched the surface, but I have come to the conclusion that the treatment of thyrotoxicosis with X-ray should be the exception and not the rule. It should not be carried to the degree of bringing a high metabolic rate to normal. I think its field of usefulness is to hasten the preparation of thyrotoxic cases so that operation can be performed. In the two cases Dr. Davison showed on the screen he got reduction, but each time after a treatment and rest the metabolic rate rose again. For that reason I feel that in these cases of profound thyrotoxicosis the Roentgenray should be used to prepare the patients for operation, but that it should not be used to the degree where extensive fibrosis develops. That makes the operation much more difficult. In other instances there are individuals with mild thyrotoxicosis who refuse to have such a portion of the gland removed as will be best for them, and we have to compromise in those cases by using roentgenotherapy.

Dr. T. C. Davison, Atlanta, (closing): (Presented another series of slides.)

Every case of goitre must be treated on its own merits, we cannot lay down any hard and fast rules. Iodine should not be given in adenomas. In the mixed type, not the true adenomas, the iodine will help the patients temporarily, but they have to come to operation later. Iodine should only be given under careful observation and with repeated metabolic readings. The Roentgenray is of only temporary benefit in toxic goitres.

Dr. Hal M. Davison, Atlanta, (closing): In taking a basal metabolic reading the operator should understand his own ability, how the machine operates, and what to do. This can only be learned by having a metabolic reading made upon ourselves, and by watching the patients carefully.

There are two or three other things that might be mentioned. In some cases with crisis it is safe to operate with a high metabolic rate when these symptoms are disappearing, while it may be unsafe to operate with a lower metabolic rate with the other symptoms increasing in their severity.

CREEPING ERUPTION (LARVA MIGRANS)

REPORT OF CASES AND FINDING OF PARASITE

WM. HOWARD HAILEY, M.D.
Atlanta

Creeping Eruption appears as erythematous, papular, itching lesions. In the early stage it is often diagnosed as red bug bites. Later the papule begins to "grow" in a linear fashion, becoming tortuous or even bending back and crossing its original path. This is due to the migration of the parasite. At times the lesions are vesicular. Often, due to scratching and secondary infection, they become pustular with subsequent superficial ulcerations.

The condition is very common along the South Atlantic coast. Because of the increasing number of people spending their vacations in the coastal cities of Georgia and Florida, it is well for physicians in the northern part of the state to familiarize themselves with this parasitic infection. The importance of the disease is illustrated by the fact that the Florida State Board of Medical Examiners, in October, 1925, asked: "What is Creeping Eruption? Give treatment."

The causative organism has been recovered by Dr. J. L. Kirby-Smith¹ in serial sections of excised lesions. It is a larval nematode, which, for the present is designated, *Agamommatodum Migrans*.

In November, 1925, the writer recovered a motile "parasite" from an early lesion which had been previously injected with adrenalin. The burrow was blanched. After incision, my attention was attracted to a moving, colorless "fiber" which projected about two millimeters. With small forceps, I extracted the body and was impressed by the resistance I felt as the parasite came out. It reminded one of pulling an earth worm from his burrow. The motion of the parasite was violent while in the forceps. It was about 5 millimeters long and as wide as a fine cotton fiber. Under the microscope, low power, it had a wiggling movement and rounded ends. Dr. Omar F.

Elder of Atlanta, also made this observation. The parasite did not coincide in size with the one recovered by Dr. Kirby-Smith. However, it may be the same organism, in a later stage of development. It was recovered from Case No. 3, reported below.

Two of the following cases reported were contracted in Fulton County, Georgia, by residents who had not been out of the county. They are the first cases reported from this locality. Since this report, a third case was seen, contracted in Fulton Co., in Sept. L. H. M. Age 12. Two burrows on left knee. Heretofore all of the writer's cases have been visitors to the coastal towns.

Case 1. A. P. W. Age 32. Architect. Came to my office March 18, 1924, complaining of an itching eruption on dorsum of right hand and wrist. Examination showed a papulovesicular and linear eruption. He stated while taking up a young cherry tree, one week before, he used his hands to free the roots. The soil was sandy and damp.

Case 2. C. R. Age 12. Schoolboy. Appeared at Dermatological Clinic, Grady Hospital (White Unit) in August, 1925, complaining of itching of left foot of three weeks' duration. For several weeks previously he had accompanied his father on afternoon fishing trips to the creek. Examination showed erythematous linear lesions. There were superficial ulcers, crusts, and scales due to scratching and application of home remedies.



Case 2. Contracted near Atlanta
Uncommon in this section

Case 3. J. P. Age 20. School. Ft. Myers, Fla. Came to my office October 7, 1925, complaining of the "itch." Examination showed a worn looking young man. He stated he had lost 21 lbs. in weight and had not slept for three weeks on account of itching. Talked of

(1) J. L. Kirby-Smith, W. E. Dove, G. F. White: *Creeping Eruption*, Archives of Derm. and Syph. 137-175 (Feb.) 1926.

suicide. His body, extremities, penis and scrotum were covered with papules, "lineaules," vesico-papules, crusts and small ulcers. Genitals very edematous. It was an extreme infection plus a superimposed dermatitis due to application of tr. of iodine, sulphur, etc.

ACROMEGALY WITH HYPOTHYREOSIS AND DIABETES MELLITUS

REPORT OF A CASE WITH CLINICAL STUDY

JOHN A. HUNNICUTT, JR., M.D. AND
ALBERT A. RAYLE, M.D.

Athens

So striking are the ultimate changes in the facies of a victim of acromegaly that the disease offers no difficulties in diagnosis.

Several special forms of acromegaly have been distinguished and alluded to in the literature. Leri mentions the following: (1) a painful form; (2) an amyotrophic form; (3) a form associated with gigantism; (4) a form associated with obesity; (5) a form associated with trophedema or myxoedema; and (6) a form associated with severe nervous and mental symptoms.

Acromegaly is conceded to be due to hyperfunction of the glandular anterior lobe of the hypophysis cerebri and may cause changes in the other glands of internal secretion, principally the thyroid and genital glands. Acromegaly is frequently complicated by glycosuria or diabetes mellitus. Borchardt collected 176 cases of acromegaly and included in their reports the results of the examination of the urine. Diabetes was found in 35% of the cases and alimentary glycosuria in eight cases. Death in coma occurs in many cases of acromegaly complicated by diabetes.

The following case with marked symptoms of acromegaly and early symptoms of myxoedema followed by a rapidly fatal diabetes mellitus is submitted.

History. May 4, 1922. The patient was a single American woman, 43 years old, who had been a talented piano teacher for 20 years and complained of thickening of her fingers, enlargement of her feet and face and a fulness in the right side of her neck.

Her mother was seventy years of age and in fairly good health. Her maternal grandmother and paternal grandfather lived to be over seventy-five years of age. Her father died at the age of fifty-two from "acute in-



Case 3. Severe infection. Common in Florida

The above case is cited to contrast the mild infection of the two Fulton County cases. However, this patient, while playing on the beach at midnight, covered his body with sand.

He had one burrow on the glans penis. The parasite passed in and out the urethra on two different occasions. This particular lesion remained 3 months before it was destroyed.

Treatment: No one drug or other agent is advisable or suitable for all cases. In most cases, using the end of the burrow as a hub, the writer prefers very superficial electrodesiccation of a nickel sized area. Local applications of formaldehyde preceded by 5% phenol have proven efficacious. Ethyl chloride, carbon dioxide, ethyl acetate and many other drugs have been used with success. Salvarsan and X-ray, in the writer's hands, were a failure.

digestion," and her maternal grandfather died at sixty from the effects of a carbuncle. She had one brother living, age forty-five, who suffered from gastric ulcer. No history suggestive of a disturbed function of the glands of internal secretion in the members of her family was obtained.

During her childhood she had measles, mumps and whooping cough and had "malarial fever" every two years up to the age of fifteen. Aside from these attacks of "malarial fever" her health during childhood was very good. Menstruation began at sixteen and had never been regular; occurred at intervals of every 3 or 4 months until 1911 and was entirely absent for one and one-half years prior to 1913. For the past four years it had occurred about once a year. It was never painful and was usually small in amount, lasting on the average of 3 or 4 days. Her appetite and digestion had always been good. She had suffered from chronic constipation since girlhood. In 1916 she had a successful operation for fistula in ano and hemorrhoids.

The study of music was begun at 7 and for the past 20 years the patient had been a piano teacher.

The onset of the disease was so insidious that the patient really did not know when the enlargement of her hands and feet began; nor could she definitely state the date of the onset of the changes in her features. In 1904 (eighteen years ago) she wore a number 5 shoe and a number 6 $\frac{1}{4}$ glove. On May 4, 1922, she wore a number 9 shoe and a number 8 glove. In 1904 she noticed that her fingers would hang between the black keys of a pipe organ. Not until 1919 did she become aware of the enlargement of her features when at that time she also noticed that her hands and feet were larger and thicker and that she had grown 4 inches in height since her 18th birthday. Her finger tips had become blunt and thick, a marked contrast to the small tapering fingers she possessed at the age of 20. Within the past 10 years her voice had changed and she had noticed that it had reached a lower range. The pitch had gone down. During this period she noticed that her lower and upper teeth did not approximate as well as they formerly did and

had been growing further apart. She had noticed no change in her power of concentration and retentiveness of memory. In 1913 during her stay abroad, if her disease was suspected it was not alluded to by a very prominent physician whom she consulted concerning her irregular menstrual history.



Figure I, 1914.

Shows all of usual facial characteristics of Acromegaly

Within the past 4 or 5 years she noticed that her skin was getting thicker and changed somewhat in appearance from a healthy looking pink to a sallow color and was dry to the touch. The tissues about the upper and lower eyelids presented a thick and puffy appearance. She also noticed a fulness in the right side of her neck.

Physical examination. May 4, 1922. Nose is broad, deep and long. Chin prognathic. Lips thick. The eyes are not prominent and the palpebral slits appear narrow on account of the puffy condition of the upper and lower lids. A photograph taken in 1904 shows some puffiness beneath lower lids. The face is broad and the ears are large, the neck has a thickened appearance and there is a visible enlargement of the right lobe of the thyroid gland. The shoulders are broad and the arms long with an abundance of hair over the extensor surfaces of the forearms. Hands and feet are large. The fingers are relatively short, thick

with blunt tips. The palms of the hands are broad and thick. The skin over the hands look thick and the joints appear enlarged.



Figure II, May 4, 1922
Essential facial features of marked Acromegaly

Height, 70 in. (175 cms).. Weight, 180 lbs. (81 kgs). Weight at 18 yrs. of age, 108 lbs.; height 66 in. Width of forehead, 6 in. (15 cms). Circumference of head (just above ears) 24 in. (60 cms). Occiput to chin, 12 in. (30 cms). Sub-occipito-bregmatic, 9 in. (22.5 cms). Forehead to occiput, 8 in. (20 cms). Bi-parietal, 8 in. (20 cms). Length of nose, $2\frac{1}{2}$ in. 6.25 cms). Width of nose, $1\frac{1}{2}$ in. (3.75 cms). Circumference of neck, $15\frac{1}{4}$ in. (37.75 cms). Circumference of chest at expiration, 39 in. (87.5 cms). Circumference of shoulders, 43 in. (107.5 cms). Arm (rt.), acromial process to tip of third finger, $29\frac{1}{2}$ in. (72.75 cms). Arm (lt.), $29\frac{1}{4}$ in. (72.62 cms). Circumference of biceps, $10\frac{1}{2}$ in. (26.25 cms). Circumference of forearm, 10 in. (25 cms). Circumference of wrist, 7 in. (17.5 cms). Circumference of palm, $9\frac{3}{8}$ in. (23.45 cms). Circumference tip of little finger and tip of thumb, $9\frac{3}{4}$ in. (24.25 cms). Circumference of waist, 39 in. (97.5 cms). Circumference of hips, 45 in. (112.5 cms). Interspinal, 14 in. (35.5 cms). Intertrochanteric, 15 in. (37.5 cms). Circumference biceps leg, $15\frac{1}{2}$ in. (38.75 cms). Circumference

knee, $16\frac{1}{2}$ in. (41.75 cms). Circumference ankle, $9\frac{3}{4}$ in. (24.25 cms). Circumference of instep, $10\frac{1}{4}$ in. (25.75 cms). Heel to tip of middle toe, $10\frac{3}{4}$ in. (26.85 cms). Size of shoe, No. 9.

EYES. Examination by Dr. Cabaniss. The pupils are normal in size and the reaction to both light and accommodation is rather sluggish. The interpupillary distance is 72 mm., 10 mm. greater than is usually seen in women. The fields of vision show a beginning bitemporal hemianopsia which is suggestive of pressure on the optic chiasm. There is a refractive condition present but her vision is brought to normal with glasses and both fundi are normal. The palpebral slits appear narrow on account of the puffy condition of the upper and lower lids.

SKULL. Roentgenray examination shows that the skull as a whole is considerably enlarged. The distance from the mandibular articulation to the tip of the jaw is 14.5 cms which gives an idea of the extent of the prognathism in this case. The accessory sinuses all present marked increase in the size of the pneumatic cavities. The maximal vertical measurement of the frontal sinuses is 4.5 cms. The sella turcica is enlarged to two or three times its normal size. At its greatest antero-posterior diameter it measures 2.5 cms. Its greatest vertical depth, measuring from a line joining the clinoid processes to the deepest point of the sella is 1.5 cms. The clinoid processes are considerably thinned out, but the outline of the sella is still distinct.

There is an abundance of hair on head and the occipital protuberance is large. Protusion of the malar bones is noticed; also hair on the lower jaw and chin. Arcus superciliares well developed. The angle of the lower jaw has changed to such an extent that the upper and lower teeth do not approximate when the mouth is closed. The skin of the face looks thick and has a doughy feel to the touch.

EARS. Large. Hearing good in both.

NOSE. Large. No history of nasal catarrh. Air passages clear.

TONGUE. Long, broad and deep with large papilla. Lips, thick.

TEETH. There is a great deal of dentistry. The upper teeth are well apart, spacing marked. Patient wears a bridge composed of lower incisors and canines and premolars right and left. There is slight pyorrhea alveolaris around upper and lower molars, right and left.

THROAT. Tonsillar tissue small in amount and normal in appearance. Uvula long and thin.

NECK. Thick, noticeable enlargement of the right lobe and isthmus of the thyroid gland.

SPINE. Slight kyphosis of the cervical thoracic spine. Slight lordosis of the lumbar spine.

THORAX. Expansion good and equal. Lungs show no impairments of respiration.

HEART. Not enlarged. No murmurs heard. Aortic second sound slightly accentuated. Pulse rate 70. Blood pressure 164-110.

ABDOMEN. No masses felt. No points of tenderness. Skin doughy to the touch.

K. K. Not very active.

ARMS. Disproportionately long. Hair on extensor surfaces of forearms.

HANDS. Thickening of soft parts of hands. Thickening of finger joints. Ends of fingers blunt, spade like, thick and broad. Roentgen ray examination shows the tips of all of the terminal phalanges to have spatula appearance characteristic of this disease. Some of

the joints show a tendency toward formation of bony spurs.

FEET. Long, broad and thick. Toes thick. Roentgenray examination shows the terminal portions of all of the metatarsal bones to present marked broadening of the bone and decreased density. All of the phalanges show marked broadening and decrease in density at both their proximal and distal ends. Small exostoses are noted at several points, the largest being an exostosis nearly 1 cm long springing from the base of the terminal phalanx of the great toe.

BLOOD. R. B. C. 4,300,000. W. B. C. 7,500. Hgb. 80%. Small Mononuclears, 30%. Large Mononuclears, 4%. Eosinophiles, 2%. Polymorphonuclear neutrophiles, 64%.

URINE. Clear, lemon yellow, sp. gr. 1.012. Alb., neg. Sug., neg. Few hyaline casts.

Sept. 30, 1922. Death. Very shortly after her physical examination the patient made a trip to Texas and while there began to complain to her mother of polyuria and polyuria thirst and loss of appetite. In August, 1922, she returned to Georgia to resume her teaching and became ill during Dr. Hunnicutt's absence from Athens. She died in diabetic coma on Sept. 30, 1922, after a week's illness. Examinations at the onset of her fatal illness revealed the presence of hyperglycemia and large amounts of sugar and acetone-bodies in the urine.



Figure III, May 4, 1922

Characteristic spade like hands, short and thick fingers with blunt tips. Joints appear enlarged. Palms are broad and thick.

ENORMOUS CALCULOUS PYONEPHROSIS

The case reported by Montague L. Boyd, Atlanta, Ga. (Journal A. M. A., Oct. 9, 1926), illustrates how painless an enormous enlargement of the kidney with very large calculi may be and the difficulty encountered at operation in such a condition. In this particular case, an intracapsular enucleation of the kidney was done. The entire mass measured about 20 by 20 by 35 cm.; the decapsulated kidney, about 18 by 18 by 30 cm. It was lobulated, fairly firm, and uniformly enlarged. It weighed 196 Gm. The stone paste weighed much more than that. Microscopic examination showed a mass of connective tissues with acute inflammatory processes and only an occasional glomerulus. The diagnosis was pyelonephritis, chronic and acute, and renal calculus.

CONGENITAL PYLORIC STENOSIS*

ROBERT L. RHODES, M.D.
Augusta

Congenital Pyloric Stenosis or Hypertrophic Stenosis of the Pylorus was first described by Bardsley in 1788, but as with many other things was overlooked for just 100 years when Hirschsprung again drew attention to it. Since this date, more and more has been written on the subject. Reports from some children's hospitals show one in two hundred admissions with the disease. It occurs more frequently in male children, about four or five to one, and more often in the first child.

Whether hypertrophy or spasm of the pylorus is cause or effect, is an undetermined fact. Both conditions are found at operation.

Symptoms: Vomiting, projectile in type; persistent, rapid loss in weight; and constipation, are the characteristic symptoms. Add to these visible gastric peristalsis and a palpable tumor in the region of the pylorus and the picture is completed.

The onset is sudden in the first few weeks of life, rarely during the first week but frequently during the third week. The child up until this time has been doing nicely when he suddenly begins to vomit, not regurgitant in type as in ordinary digestive disorders but projectile, such as is seen in brain lesions. It may occur immediately after the taking of food or even while feeding or there may be retention of several feedings. Loss of weight is rapid because the child obtains no nourishment. For the same reason constipation is pronounced.

Objectively, gastric peristalsis is most characteristic, large waves moving from left to right across the stomach to end at the pylorus. A definite tumor is palpable at the pylorus in the vast majority of the cases.

Differential Diagnosis: Pyloro spasm without stenosis may present similar symptoms and signs but of milder degree. Relaxation is

usually obtained by the use of atropine and proper diet.

Strauss states "that fluoroscopic examination is the most important means of making an accurate diagnosis," and "that when bismuth milk is introduced into the stomach and the child rotated so that it gravitates toward the pylorus a small amount squirts through and then the pylorus clamps down tightly. Immediately, peculiar and characteristic rhythmic snake-like contractions can be seen in the pylorus, which are independent of the rest of the stomach. This is absolutely pathognomonic." He further claims that "the cases in which eighty per cent or more of the bismuth has passed through the pylorus at the end of four hours can, as a rule, be cured medically."

Treatment: Medical treatment should always be tried first, to rule out simple pylorospasm and mild degrees of stenosis. When, however, the symptoms persist and the child is steadily losing weight, surgical interference should be sought before the child is in extremis.

Surgical Treatment: Active measures to overcome dehydration should be carried out before the actual operative relief is undertaken.

In the earlier days pylorodiosis, pyloroplasty, gastroenterostomy, and even pylorectomy were employed. These carried a high mortality owing to the technical difficulties of such operative procedures in so small a child. It became more and more evident that some simpler technic must be devised. Fredet, in 1910, described the procedure popularly known in this country as the Rammstedt operation because in 1912 and 1913 the latter brought it into rather more prominence. This operation consists simply in the division of the hypertrophied and stenosed pyloric muscle down to but not into or through the mucous membrane. The key note is the complete division of each fibre, since failures have been found due to one or two fine fibres not divided. Extreme care is necessary to avoid opening into the mucous membrane. As an improvement in the technic the suggestion was made that the cut muscle edges be further separated from the mucous membrane

*Paper read before the Richmond County Medical Society, June 17, 1926.

by spreading them apart, thus converting a circle into a "U." This permits the infolded mucous membrane to expand as described by Dean Lewis.

A. A. Strauss of Chicago, in 1912 and 1913, devised a similar operation but went one step further in advising that a flap be turned up from the divided, separated muscle and hinged over the denuded mucous membrane and sutured to the opposite side. This, however, seems to be an unnecessary addition, just as in the matter of suturing a tag of omentum over the denuded area in the Fredet-Rammstedt operation. The cases do just as well where only simple division and separation of the cut ends of the muscles is practiced.

The question of the anesthetic is somewhat controversial. Some advocate local infiltration anesthesia, others a general anesthetic. It seems to me this is a matter for each surgeon to decide in each individual case. Because of the difficulty of keeping the little tots absolutely still, even though a sugar rag is used during local anesthetic operations, and because the hair breadth distinction between opening and not opening the mucous membrane, might be disastrous, my own preference is for a general anesthetic unless there is a rather definite contradication. If the surgeon, assistants and patient are all in readiness before the anesthetic is started, the incision through the mass is made during primary anesthesia, it is quickly divided, edges retracted, pylorus replaced into the abdominal cavity, and the wound closed. The entire time need not be more than a very few minutes.

I have performed the operation, from incision to closure, in eight minutes and have never taken longer than fifteen minutes. The latter instance was in a case with rather free bleeding from the cut muscle which was controlled by hot packs instead of ligating because of the friability of the stenosed tissue.

After operation, it is very important to begin feeding promptly in small quantities (1-2 drachms) and push the amount up as rapidly as the child will take it, until full quantity is taken regularly.

Two Illustrative Cases: J. W. M. admitted

to Wilhemford Hospital Aug. 9, 1919. Age 5 weeks. Third child, the two older were normal in every respect. Normal birth and progress until three and one-half weeks old, when he began to vomit after each feeding. He lost weight and stools resembled meconium. After five days of strenuous efforts by Dr. W. A. Mulherin at feeding, including "duodenal feedings" the symptoms persisted with the loss of an additional seven ounces. I was then called in consultation and we agreed that operative interference was indicated. The operation was done under general anesthesia and with the technic as outlined above. The time from incision to closure was eight minutes and the child made an uneventful convalescence. He is living and in excellent health at the present time.

The second case, W. B. K., was operated upon at 8 weeks of age. Symptoms began at 3 weeks of age but were intermittent in type, better for 2-3 days then worse again for a similar period. Dr. F. X. Mulherin had followed him carefully and closely, and had him in Wilhemford Hospital for 12 days, during which time he apparently did very nicely. About a week after leaving the hospital, symptoms recurred and were much more severe in type. He was readmitted to the hospital and I was called in consultation. Fluoroscopic examination at this time showed the typical picture mentioned above.

At operation, as in the previous case, 15 minutes were required, several of which were consumed in arresting rather free hemorrhage from the cut ends of the pyloric muscle. This was controlled by repeated hot salt solution sponges pressed firmly against the oozing surfaces. Because of the brittleness of these stenosed muscles and the tendency for ligatures to cut through, I have preferred to control the bleeding by the hot pack method and have always been able to do so.

This child is also living and well, four and one-half years since operation.

**Pay 1927 Dues to Your
County Secretary Now**

"DIVERTICULITIS" FROM THE SURGEON'S STANDPOINT*

W. W. BATTEY, M.D.

Augusta

Diverticulitis is an inflammation of a diverticulum. A diverticulum is a non-neoplastic outpouching from any tubular organ.

The common sites of diverticula are the oesophagus, bladder, ureter, urethra and intestinal tract.

This presentation will deal with diverticula of intestinal tract since this type is so prone to inflammation.

Diverticula may be congenital (Meckels) or acquired. The former being designated true and the latter as false. In true diverticula gut tunics constitute the wall, while in false, one or more bowel coats give way, permitting the mucosa to herniate outward forming a pouch that may or may not possess a peritoneal covering. Occasionally true, as the result of prolonged destruction, become false, in which case thinned musculature shows at the base.

Acquired diverticulitis occurs more frequently between the fortieth and sixtieth years, about twice as often in men as in women, and in various intestinal segments from stomach to the anus.

Diverticula rare in the appendix, duodenum and jejunum, occasionally in the ileum, common in the cecum and very frequent in the descending colon and sigmoid flexure, involve the rectum more often than published cases and post mortem statistics indicate.

Acquired diverticula may be single or multiple, small or large, oval or irregular, in shape, soft or firm, confined to a single or involve several bowel segments and encountered at any point on the intestinal circumference, but are more common at the mesenteric border and sites of appendices epiploicae, which may conceal them.

Sacs may remain inactive for years or at any time become infected and inflamed, causing symptoms frequently mistaken for appen-

dicitis, peritonitis, chronic intestinal obstruction, new growth or pelvic abscess. That definite symptoms are absent in about fifty per cent of the cases is indicated by the frequency with which diverticula are unexpectedly discovered during X-ray search or autopsy.

Etiology: In some the etiology of acquired diverticulitis is obvious, but in other cases the causation of intestinal pouching cannot be explained except on the basis of inherited weakness of intestinal musculature that gives away owing to gas or fecal distention.

Age, through accompanying disturbed metabolism weakening of intestinal musculature and chronic constipation complicated by gas and fecal accumulations is an important factor, and sex is evidently a predisposing cause since the disease occurs more than twice as often in men as in women.

Wasting disease—cancer, tuberculosis, colitis, etc.—with intestinal atrophy favor the formation of diverticula by impairing longitudinal and circular muscle-fibers so they stretch, break or separate, allowing the mucosa to herniate through them when pressure is exerted from within, in such cases normal colonic sacculations sometimes become exaggerated and are mistaken for diverticula.

Hemorrhagic infarcts, worms, foreign bodies, obesity—with fat gut wall—ulcerative colitis, dilated intestinal glands, and other conditions have led to the formation of pouches by perforating destroying or indenting the mucosa, or impairing intestinal musculature.

New growths—constipation and various chronic obstructive lesions responsible for obstipation, coprostasis, and gas retention are causative factors in diverticula because of accompanying frequent distention, presence of fecal masses and atrophy, or thinning of intestinal tunics.

Diverticula are often encountered at the mesenteric border; some authorities claim vessel openings favor herniation, particularly in chronic heart, liver and other affections accompanied by mesenteric strangulation, while others attribute the formation of sacs to relaxation of connective tissue surrounding the aperture.

Diverticula have also followed accidental

*Read before the Richmond County Medical Society, June 17, 1926.

injuries and operations that weakened the intestinal tunics.

Congenital are usually found in the small intestine while acquired diverticula ordinarily involve the cecum, colon, and sigmoid flexure, the latter representing the classic type of intestinal pouching.

Active diverticulitis is characterized by marked connective tissue growth round cell infiltration—and later by fibrosis and later by contraction and consequent intestinal occlusion. The sac wall becomes thickened and firm, and as a result of this and deposits of exudates and cicatricial tissue around it a dense elastic tumor is formed.

Pouches gradually enlarge usually retaining their peritoneal covering and often undergo infection that terminates in an abscess that may rupture into the abdomen through the abdominal wall, or discharge into the bowel through a fistulous or the original opening, connecting the gut and lumen of the diverticulum. Occasionally perforation takes place in non-inflamed diverticula that are ulcerated, or have thin walls caused by distention or through pointed foreign body. In some instances peridiverticular adhesions angulate, twist, occlude, or otherwise distort the intestine by pulling, strangulating, or compressing it, and in such cases coprostasis and auto-intoxication are manifest. Frequently in aggravated cases, as a result of perforation or rupture induced by ulceration, fecal and gas retention, or emptying of an abscess a fistula is formed that discharges into the bowel, vagina, bladder, or upon the surface of the body; more than one perforation has been observed in multiple diverticula.

Diverticulitis and peridiverticulitis may be acute, but are more often chronic: because of the size, form, consistence, and macroscopic appearance of the tumor, diverticula are frequently mistaken for carcinomata towards which they are undoubtedly a predisposing factor. In twenty-seven cases of sigmoidal diverticulitis reported by the Mayos, cancer was grafted in the diverticulum in seven.

Symptoms: Small intestinal sacs excepting Meckels rarely become inflamed but twenty-five per cent of colonic and sigmoidal pouch-

ings undergo secondary changes that produce definite manifestations. In the beginning patients suffering from diverticulitis complain of abdominal uneasiness, discomfort, and sinking sensations, digestive disturbances, moderate constipation, and gas accumulation, but later when inflammation has extended deeply into or through the diverticulum peridiverticulitis—localized tenderness and cramps, obstinate constipation alone, or alternating with diarrhoea, sensation of blocking, fecal impaction, and pain in the sigmoidal region left sided appendicitis—are troublesome symptoms; finally when the bowel is about occluded there is marked gas—tympanites and fecal retention, severe pain, muscular rigidity, nausea and vomiting, obstipation or coprostatic diarrhoea, leucocytosis, increased pulse rate, irregular or high temperature—when the diverticulum is infected—and mucus, pus, or blood in the stools.

Where unrestricted perforation takes place from ulceration, gangrene or rupture, the patient exhibits the usual signs of spreading peritonitis; when an abscess is formed continuous localized pain and swelling are in evidence until it is drained, ruptures or discharges through the diverticular opening in the bowel. Cystitis is troublesome when there is an opening between the bladder and bowel or sac. Between attacks symptoms and size of the tumor diminish, and the swelling is smaller when the sac is temporarily freed of gas, feces, or pus. When there is transposition of the sigmoid flexure diverticulitis closely simulates appendicitis.

Diverticulitis and peridiverticulitis simulate and must be differentiated from neoplasms, tuberculosis, chronic appendicitis, actinomycosis, intestinal obstruction, chronic sigmoiditis, fecal impaction, encysted foreign bodies, disease of the adnexa, chronic abscess, fistula and vesical tumors.

With a history of chronic left inflammation—with periodic exacerbations and an absence of marked cachexia and loss of weight, one is justified in making a diagnosis of diverticulitis when the patient complains of obstipation and diarrhoea, localized muscular rigidity, tenderness, pain, and gas retention, pus

in feces, a firm oval tumor palpable in the left inferior abdominal quadrant and when through the sigmoidoscope the mucosa appears smeared with pus, or an opening is discovered through which pus is discharged and a probe can be introduced into the sac. Owing to the frequency with which fistula connects the bladder and diverticular, cystoscopy and examination of the urine for pus is advisable.

As to treatment diverticulitis is mainly surgical. Numerous small pouches that have not undergone secondary changes may be buried by infolding or excised and the stump inverted with a purse string suture or the wound closed where long with through and through sutures reinforced by Lembert stitches.

Removal of sacs and resection of the involved bowel is impracticable when diverticula are numerous and widely scattered and the gut is short-circuited. Usually diverticulitis and peridiverticulitis are complicated by infection and in such cases the abscess is incised, irrigated and drained, and the wound only partly closed after binding adhesions have been destroyed. When there is a fistulous opening between the bowel and bladder and diverticulum after dissecting the sac free and cauterizing edges, the aperture is closed by infolding sutures.

Where excision of the diseased bowel is impracticable owing to adhesions relation of the pouch to other organs, and dangerous condition of the patient because of infection, perforation or acute intestinal obstruction, a temporary artificial anus is formed following opening and draining of the abscess. When feasible enteroanastomosis, ileoproctostomy or ileosigmoidostomy or intestinal exclusion is substituted for colostomy to relieve obstruction and procure daily soft evacuations without the nuisance of having feces discharged through the side.

Appendicostomy or cecostomy are useful adjuncts in the surgical treatment of chronic diverticulitis since they provide for through and through colonic irrigation, which heals inflamed and ulcerated areas, frees the bowel of irritants and facilitates convalescence from auto-intoxication.

URETHRAL CALCULI IN CHILDREN

REPORT OF FIVE CASES IN CHILDREN UNDER 10 YEARS OLD

WALLACE L. BAZEMORE, M.D.
Macon

Urethral stones are classified as primary and secondary. Primary stones are extremely rare. Such may form within saculations or within the tubular glands along the male and female urethra. They are always phosphatic.

The urethra normally tapers from the bulb to the fossa navicularis, and the meatus is usually the narrowest part. After that comes the dilatation of the fossa navicularis followed by a more or less uniform penile portion. The bulb presents the widest part, then the membranous which is narrower and lastly the prostatic urethra, it being uniform and becoming narrow at the neck (1). Thus we have three constricted parts, the meatus, membranous, and vesical portions. The first two are the least dilatable.

English (quoted by Keyes) collected 474 cases of stones in the urethra, 149 occupied the membranous portion, 68 the bulb, 103 the penile and scrotal portions, and 41 were in the fossa navicularis.

It is astonishing to what extreme size these stones may attain before stopping the urinary flow. This is especially true in regards to peri-urethral calculi which are formed within pouches in which they grow, causing only slightly noticeable urinary symptoms. Britneff (2) reports a urethral calculus weighing 427 grams. With these large stones there may be no findings other than a palpable mass. This form of stone ultimately leads to abscess and pressure blockage.

The general symptoms of urethral calculi are localized pain, interference with micturition and inflammatory phenomena. Impacted posterior urethral calculi cause dull perineal pain, itching and dragging in the rectum. (3)

Interference with micturition depends on

*From the Urological Department, Macon City Hospital.

the size and location of the stone, plus the degree of inflammatory reaction. The primary phosphatic calculi give no other symptoms than those due to the inflammation and gradual increasing obstruction; i. e., urethral discharges and increased frequency of urination followed by dysuria.

To establish a correct diagnosis we must combine our history, physical, urine examination and X-ray findings. Pain in the urethra is suggestive. Metal instruments give a metallic click if they come in contact with the stone. There is always some pus in the urine because of the adjacent inflammation. The X-ray may or may not give a shadow.

In dealing with urethral calculi our procedure depends on the size and location of the stone, also on the time the stone has remained in the urethra. First of all a generous meotomy must be done. Forceful urinations with intermittent compression of the meatus may cause the passage of a stone. If a stricture complicates matters it is usually better to cut than dilate. Small stones in the anterior urethra may be removed with the endoscope and forceps. Large ones require incision. Stones back of the triangular ligament are best pushed into the bladder and dealt with there.

I believe the cases herein reported to be secondary calculi, that is, stones obstructed within the urethra, having their origin within the bladder or upper urinary track.

CASE No. I

R. G. Age 9. Male. Seen in acute retention September 10, 1924. Bladder greatly distended and patient in much pain. A small rubber catheter was blocked in the scrotal urethra, a filiform passed and a tunnel sound followed. Metallic click felt. Patient voided eleven ounces clear urine. Voided normally for a few days and was again in retention. An anaesthetic was given and an unsuccessful attempt made to pass an endoscopic tube. Dilated with sounds up to No. 23. His urine was not afterward strained and he does not know if he passed a stone, but he has remained free of symptoms and there is now no obstruction in the canal. X-ray was negative.

CASE No. II

R. S. Age 6. Male. At various times during the past four years patient has cried out while urinating. For past six months clothes constantly wet and urine foul. Two months ago suffered from retention. A trochar was introduced releasing much foul urine. Since this there has been constant dribbling, he being able to pass only a few drops of urine voluntarily. I first saw the child on December 5, 1925, at which time his bladder was distended and he was in quite a bit of pain. There was tenderness in both loins and over bladder. His tongue was dry and his general condition poor. Urine was foul. X-ray showed a stone in the bladder region about the size of a quarter. A diagnosis of impacted urethral calculi was made and a supra public cystotomy was done. The stone was found impacted in the prostatic urethra. By passing a sound down to the stone it was forced back into the bladder and removed. A promise was made to return the stone to me after it had been admired by relatives and friends but I have failed to receive it. The patient was lost sight of. The stone was elongated and pinched in its mid portion, a dumb bell affair which gave evidence that it had remained within the urethra for some time.

CASE No. III

The next case is a boy three years old seen in consultation with Dr. J. F. Adams on October 15, 1925. Bladder distended, pin point edematous prepuce and dribbling. Unable to pass any urine voluntarily. Duration of illness 24 hours. No history of renal colic. Rectal examination negative.

Patient circumcised and a No. 10 sound passed as far as the bulb where obstruction was met and metallic click elicited. Unable to introduce endoscope, a No. 20 sound was passed to bladder. Patient voided apparently clear urine after dilatation while under anaesthetic.

For the following two days voided small quantities frequently with marked pain. On the third day passed blood and with much pain. Following this there was a gradual return to normal.

CASE No. IV

W. B. Age 8. Male. February 24, 1924, was awakened in the early morning with nausea and vomiting, continuing until midnight the following day. He was unable to retain even water and complained of pain in the lower abdomen. Two days later he began to dribble and was incontinent day and night. Temperature rose to 100 degrees and a diagnosis of appendicitis or "abdominal abscess" was made and poultices applied. Now complained of marked dysuria. Condition remained unchanged until March 18th at which time he passed about a quart of milky urine which was very foul. Immediately his temperature fell to normal. For the next three days he voided fairly free but with some pain. On March 22nd his abdomen again became enlarged and tender and was followed by rise in temperature and dribbling of urine. Morphine was given for pain. At this time his penis began to swell. Unable to retract foreskin because of edema.

I first saw the patient on the morning of March 23rd. Temperature 102 degrees, tongue fairly moist, abdomen not distended but extremely tender. Voided one and one-half ounces cloudy urine which contained a moderate amount of pus. Loins were negative to palpation. The penis was phymatic, very edematous and tender. Marked tenderness and redness was present in the left inguinal region.

Under general anaesthetic a dorsal slit was made to base of penis. There was no balanitis. It was thought that subsequently more extensive incision would be necessary. A soft rubber catheter was passed to bladder without meeting obstruction. One-half ounce hazy urine obtained thirty minutes after voiding.

Hot permanganate soaks were ordered. At 8 P.M. his temperature had fallen to 100 degrees. The tenderness and redness in the groin was about the same. The following morning temperature 99 degrees and inguinal tenderness subsiding. Voiding four ounces hazy urine.

Phthalein test 15% in first hour and 25% in second hour after intramuscular injection. X-ray examination and hospitalization de-

ferred because of financial reasons.

On March 25th while voiding, a second stream of urine was noted about the frenal region. A probe could not be introduced because of pain. The following day there was considerable pus about the frenum, and a small stone measuring $\frac{1}{2}$ by 1 cm. was removed thru the fistula, the stone having ulcerated through the glans penis.

March 28th—P. S. P. first hour 25%. Second hour 20%. Prostatic bed scarred and irregular.

On April 15th I was informed by letter that the fistula had closed and patient was voiding normal.

CASE No. V

Case V is of a seven-year-old girl. She has complained of pain in the abdomen for six months. No frequency but occasionally has had burning or urination. Two weeks ago some pus was found in the urine which was otherwise negative. First seen by me June 1, 1926, with temperature 102 degrees and tenderness in left loin. Had complained of continuous pain in lower abdomen for two days. There were a few pus cells present in urine. On June 4th the patient was taken with severe pain in bladder and a constant desire to urinate. Examination revealed impacted calculi in the urethra. Patient was given ether and stone removed with forceps. There was only slight bleeding. The temperature became normal and patient free of all symptoms.

REFERENCE

1. Venereal Clinics. Clarkson, Wm. Wood & Co. 1922. page 103.
2. Rev. Clin. d'Urol. 1912. Sept.
3. Genito-Urinary Surgery and Venereal Diseases. Martin, Thomas and Morehead. Page 162.

PROTEIN TREATMENT IN SYPHILIS

A. CATALANO

Riforma med., 42; 369, April 19, 1926.

Catalano injected intramuscularly at five-day intervals from 5 to 10 cc of boiled milk into patients with general paresis and tabes. Besides this he used bismuth. He failed in three cases of tabes, but had excellent results in five of eleven patients who had general paralysis.

REPORT UPON THE HOUSE OF DELEGATES OF THE AMERICAN MEDICAL ASSOCIATION WHICH CONVENED AT DALLAS, TEXAS, FROM APRIL 19 TO 23, 1926

Membership: The report of the secretary of the American Medical Association to the House of Delegates showed an enrollment of ninety-one thousand seven hundred and ninety-two members; fifty-eight thousand and six hundred and eighty one being Fellows, a slight increase over the previous year. Out of one hundred and sixty-one counties in Georgia there are one hundred and four organizations, fifty-seven counties being unorganized. Number of physicians in the states three thousand one hundred and twenty-two; members of the State Association one thousand seven hundred and eighty-four; Fellows of the A. M. A. eight hundred and four.

State Secretaries: Organization of the annual conference of secretaries of the respective State Associations has been instituted. This conference was held at Chicago in November, 1925. Most of the secretaries were present. This movement is looked upon as a wholesome feature of the American Medical Association activities.

Delegates: The secretary stresses the importance of the Constituent Associations electing as delegates only members who are Fellows of the A. M. A. The by-laws state that a member must have been a Fellow of the American Medical Association for two years before he is eligible to represent his state in the House of Delegates. By not observing this by-law many elected delegates have failed in the past to be seated in the House of Delegates.

Publications of the A. M. A.: Report of the Board of Trustees of the A. M. A. to the House of Delegates shows the circulation of the Journal on January 1, 1926 to have been eighty-six thousand five hundred and eighty-two. Fifty-three thousand seven hundred and five of these subscriptions go to Fellows, the remainder to members and other subscribers. It might be well to explain here that a Fellow is one who is a member of his State Association, makes application for membership and

is accepted as a member in the American Medical Association. The members are those who are members of the component State Associations and have not become members of the A. M. A. These members frequently subscribe for the Journal without applying for membership, thinking that this procedure makes them a Fellow, which is erroneous. Receipts for advertising in the Journal show approximately six hundred and eighty thousand dollars.

The American Medical Association publishes in addition to the Journal, Archives of Otolaryngology, Archives of Pathology and Laboratory Medicine, Archives of Internal Medicine, American Journal of Pediatrics, Archives of Neurology and Psychiatry, Archives of Dermatology and Syphilology, and Archives of Surgery. These are all valuable Journals and it is important that members and Fellows should avail themselves of their benefits. All of these have shown a slight profit to the Association except Archives of Neurology and Psychiatry and Archives of Dermatology and Syphilology. In addition to these the Association publishes many pamphlets and posters which are almost a total loss but are of much value to the profession and public.

Hygeia: Our publication which is of the most value to the American people is mentioned last because special stress should be placed upon its importance. Hygeia is by all odds the most valuable and dependable health journal published in America. Our Association issues this Journal monthly at a loss averaging around twenty-five thousand dollars per year. This loss is due wholly to lethargy on the part of the medical profession. It is a Journal which should be upon the table of every doctor's waiting room, and in every public and private library in America. If each doctor would do his duty this would be accomplished.

Council on Pharmacy and Chemistry: The Council on Pharmacy and Chemistry gave a most excellent account of themselves, the work which may be observed each week in the Journal. The labor which it takes to carry on their investigation is stupendous and prob-

ably is not duly appreciated by the members of our Association.

Periodic Examinations: Periodic health examinations on the part of the public was especially stressed, it being the chief topic of the incoming President's address to the House of Delegates. Recommendations that each individual yearly upon his birthday call upon his physician for a complete examination was unanimously adopted.

Prohibition Act: Discussion of the Prohibition Act and the advisability of putting a full time man at Washington for the purpose of looking after legislation having bearing upon the practice of medicine was discussed in executive session. The prohibition question was referred back to the Board of Trustees.

Legislation: The House of Delegates recommended that a full time man be placed at Washington not as a lobbyist but for the purpose of looking after the interest of the Medical Association and its members. The reason why so much interest was taken in placing a full time man at Washington was on account of the hasty passage of the World War Veterans' Act in 1924 which granted to Veterans, regardless of financial need the privilege of hospitalization and treatment at government expense for all diseases and injuries whatsoever. The passage of this law was disapproved by the House of Delegates.

Chiropractics: Approval of Chiropractic Schools by the United States Department of Labor was considered bad practice in that it places chiropractics where public health would not be properly safe guarded, especially in reference to immigration. On account of this action on the part of the Department of Labor, in many states cults are already demanding to be placed upon the staff of state and municipal hospitals.

Lye: A lye resolution was adopted recommending that a national uniform law be enacted to protect the public in the labeling of lye.

Zinc Stereate: A resolution was adopted that the public should be better protected from zinc stereate which is used in the manufacture of dusting powder. An outline for the

manufacture of a container was given so that the package can not be opened by infants.

Gorgas Memorial: The acceptance of a proposition from the Gorgas Memorial Institute to place three men from the American Medical Association on their board of directors was not accepted. A committee from the Board of Trustees was appointed a year ago to investigate the matter and it was decided by this committee that these members of the Medical Association which the Gorgas Memorial Institute proposes to place upon its board of directors would function in name only and that the Institute would be run wholly by its Board of Trustees with Dr. Franklin Maryin as chairman. Sentiment was strongly against the present management of the Gorgas Memorial Institute as it was thought that matters of this sort bearing so directly upon public health should be in the hands of the American Medical Association.

Contract Practice: The plan of procuring patients by contracting with individuals or families either direct or through corporations or agents was disapproved.

Clinics: Procuring of patients through clinics where the sale of stock is made to doctors to obtain these doctors' influence was disapproved and placed in the category of fee splitting.

Nurses: A resolution favoring hospital training for nurses so that within two years they might be given a certificate to do general nursing was referred back to the Committee on Education and Hospitals to be reported upon next year.

Court Witnesses: The House of Delegates went on record as favoring the enactment of a law so that in civil and criminal cases where the issue of insanity is raised the court may appoint an expert medical witness who shall be paid out of public funds and who shall furnish to the court a written report of his findings. This would avert the exploitation of so-called specialists in court trials.

Cosmetics: In view of the fact that many cosmetics contain chemicals that are deleterious to users, a committee has been appointed to investigate these and use the means within

its power to protect the public against such of these as may be harmful.

Miscellaneous: The Committee on Miscellaneous Business was asked to investigate the needs and feasibility of establishing a home for indigent doctors and to report to the next meeting of the House of Delegates.

Contraception: There is a bill before congress allowing contraception literature to pass through the mails. This movement is fostered by an organization ostensibly to control birth. The Board of Trustees stated that they had not sufficient information upon the subject at present to make a report and the matter was referred back to them for further action.

Vital Statistics: Only seven states in the union have failed to pass a Vital Statistic Law. A resolution was passed pledging the A. M. A. to do all in its power to have this law enacted in every state in the union by 1930.

Your delegation is happy to report that one of its members, Dr. Allen H. Bunce, was elected Vice-Speaker of the House of Delegates.

Respectfully submitted,

E. C. THRASH, Chairman.

REPORT OF COMMITTEE ON NATIONAL DEFENSE

It is somewhat difficult to measure, but there seems to be a lack of interest amongst the medical men in the matter of National Defense and in the Organized Reserves. Throughout the State the number of doctors who have become Reserve Officers during the year is small as compared with that in other branches of the Service. The reason for it probably is that the doctor does not have the time for study or for attending officers' meetings. His time is not his own and he can not shape his affairs as men in other walks of life are able to do.

None the less the medical men are needed in the Army and Navy just as much as any other men and it is desirable that the doctors of Georgia enter the Service in large numbers. They will thus constitute what is really the first line of defense and at the same time show that an intelligent section of men is in favor of protecting homes and country from the military aggression of other nations. In this connection there is just one thing to have in mind. Every man who contemplates

entering the Service or who is already in it knows certainly whether he is militant and wants war. He knows better than any pacifist or propagandist can tell him whether he is likely to induce war because he is in the Service or whether he is there purely to defend the country in emergency and to show to those who may be belligerently inclined that he had best be left alone because of his strength when they are looking around for trouble. We all know that there are people in the world who have been so trained by long experience to expect war that they come to want it and to have a false and spurious self-consciousness that leads them into combat with those whom they think they can overcome. Our isolation is not enough to prevent them from attacking us in one way or another but our manifest strength would do so. Let us show the world that we are able to manage our affairs and to protect ourselves against all comers and then we shall have peace.

The Army and Navy are open to applicants for Commissions in the Medical Departments. The examinations are not so severe as to prevent the entrance of any good man no matter if he has had no military training. The doctor can not be expected to know military matters until he has had reason to study them. Then they are easy to learn.

In Atlanta we have about 40 doctors and dentists who have organized themselves into a medico-military society that meets once a month and hears lectures from competent medical officers upon the duties of the doctor in the Forces. These are most interesting and such groups may readily be formed in any community. Lectures will be supplied to them and all information as to the Department Correspondence Classes will be given helpfully. One learns not only those things in medicine and hygiene that are of value in the Army but he gets a new slant upon these very subjects in private life that are valuable in his work.

Once a doctor has secured a commission he has the opportunity of going to Training Camps each year for his further study and gaining acquaintance with his fellow officers in the outfit to which he may have been assigned. This is not compulsory. It is a privilege that the officer will enjoy when he has learned of it. He is paid for his time as is any regular officer of like grade.

I said that we constitute the first line of defense. I mean that so soon as an emergency has been declared by Congress and we are called to the Colors, we must begin the physical examination of the troops called at the

same time. This is called Processing and it is the first and most important part of Mobilization after the men have been called. It depends for its success upon us and our knowledge of the peculiar things that must be done well and quickly in order to make the Army really available.

Every Doctor in the State is urged to give consideration to this matter and to proffer his services if he can do so. The older men can set a good example even if they feel that they can not give the same amount of time to the training that the younger men can do. The younger men will find the work entertaining and the associations thus built up, pleasant. They can feel that while they are gradually acquiring a familiarity with the duties they have assumed, they are being excellent citizens and insuring an early availability of the great forces of the country if they should be needed. The late war showed that an Army can not be raised over night, that it must consist of more than a great crowd of men. The men must be trained and know their business before they are effective. We should never find ourselves again in the predicament we were in when we had to wait a year before we knew enough to enter battle. Medical men with their wonderful influence in the communities can build up by precept and example the wholesome idea of trained military national defense, without militarism itself, better than can any other set of men.

RICHARD R. DALY.
Lieut. Col. Med. Res., U.S.A.

CHLORETONE PER RECTUM IN POST-OPERATIVE CASES

T. C. DAVISON, M.D.
Atlanta

For a long time we have been searching for a remedy or remedies which would relieve our post-operative cases of the distressing sequelae following anaesthesia and abdominal operations, and at the same time not retard the patient's convalescence.

The immediate post-operative sequelae requiring relief, as a rule, are pain and nausea with vomiting. These vary according to the anaesthetic, the nature of the operation and the duration of both. Later sequelae are retention of urine and tympanites. The free use of morphine with post-operative cases to

relieve pain often acts as a boomerang, increasing and prolonging the nausea, paralyzing peristalsis which results in tympanites with more pain. This in turn calls for more anodyne, producing a vicious circle. It also paralyzes the bladder, necessitating catheterization which often results in cystitis.

Any remedy which will help to tide our patients over the first forty-eight hours and do away with, or reduce the necessity for opiates is indeed a boon to suffering humanity. We have been using Chloretone for several years in various ways and doses, and now think we have developed a routine which at least, to some extent, prevents a majority of our post-operative patients from developing either some, or all of the usual distressing sequelae, thereby making the patients more comfortable and hastening convalescence.

To secure the much desired results, it requires a careful pre-operative preparation and a routine post-operative treatment, rather than the mere administration of any one particular remedy. In operations of election, we give alkalies and glucose for forty-eight hours before operation to furnish the liver with an excess of glycogen and to increase the alkali content of the blood. This decreases the probability of post-operative acidosis. Our routine is sodium citrate grains 30 in full glass of water one hour before each meal and glucose half ounce in orangeade between meals and at bedtime. No purgative is given, though a light laxative may be administered thirty-six hours before operation and an enema given three hours before the anaesthetic. The patient has general diet until twenty-four hours preceding the operation when the diet is restricted to toast with boiled milk and orangeade sweetened with glucose. The patient is given Chloretone 15 grains at early bedtime the night before operation, and one hour before the anaesthetic, morphine grains $\frac{1}{4}$ and atropine grains $\frac{1}{150}$ per hypodermic.

When the patient returns to his or her bed from the operating room, the nurse at once gives:

(Continued on page 451)

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Articles are accepted for publication on condition that they are contributed solely to this journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Reprints should be ordered within 30 days after the appearance of an article, since all type will be destroyed at the end of that time.

Editorial Department

GIVE YOUR DOCTOR A CHANCE*

Do you remember the work of General Gorgas in Panama? In Panama men could work only if the government did its job of fighting mosquitoes. No man alone could avoid the disease. The power of the government was needed to clean up the isthmus before the steam shovels could dig.

An inspiring record, but don't let admiration for what the government did divert attention from your own responsibility.

The periodical health examination is the next long step toward a reduction of the sickness and death rates.

Go to your own doctor once a year and get a thorough examination. You do as much for your automobile if you expect it to give lasting service. Why not give yourself as great a measure of security?—*Collier's*, *The National Weekly*, for November 6, 1926.

*The above is only a brief abstract. Get "*Collier's*" and read the editorial. It is the strongest endorsement of President Harvard's addresses that we have seen.—Ed.

NOVASUROL

Novasurol, a 33.9% mercurial drug, is one of the most potent diuretics ever introduced into medicine. Its effect is noted two or three hours after administration and lasts for twelve to forty-eight hours. The urinary output following a single injection may exceed thirty-five hundred cubic centimeters in twenty-four hours.

The action of the drug is unknown. Some experimenters suggest that it acts directly upon the body tissues while others believe it stimulates excretion through the renal epithelium.

Its field of usefulness, unfortunately, is limited; and its use is absolutely contraindicated whenever there is evidence of frank renal disease. The administration in such instances is frequently followed by marked hematuria, and further unimpairment of kidney function. It should also not be used in cases of enteritis because of its irritating effect upon the intestinal mucosa.

The principal indication for its administration is found in cardiac and cardio-vascular disease accompanied by edema and chronic passive congestion of the viscera. Even in these conditions, however, it should be used with some discretion, and properly controlled by estimations of the blood nitrogen.

Serby, in summarizing his findings in a series of cases, notes that "Novasurol may induce a decrease in anasarca and an increase in uremia simultaneously."¹

(1) Serby: The Pharmacology and Therapeutics of Novasurol. Arch. Int. Med., Sept., 1926; Vol. 38, pages 374-384.

MENACE OF THE SLIGHTLY POSITIVE WASSERMANN REACTION

In an article read before the section on Pathology and Physiology at the Dallas meeting of the American Medical Association and appearing in the *Journal* of October 23rd, Dr. James Herbert Mitchell very strikingly portrays some of the unfortunate and tragic results of faulty interpretations of doubtfully positive Wassermann tests.

Any one familiar with laboratory technique recognizes the fallibility of even the most elaborately controlled procedures, and the necessity of a mutual understanding between pathologist and clinician in order to estimate their value in specific instances, especially when there are apparent discrepancies between laboratory and clinical findings. In many instances only by repeated examinations of specimens can authentic information be obtained.

There is, without doubt, a moral obligation on the part of the laboratory man to let it be known that his work, like the clinician's, is not infallible, because some clinicians who, though they frequently find it necessary to make repeated careful physical examinations before arriving at a diagnosis, will accept a questionable laboratory report as evidence of either their own mistakes or the incompetency of the pathologist. It likewise follows that the pathologist should be guarded in giving information to the patient for whom his work is done.

In the final analysis the clinician must bear the responsibility of any and all means used for the diagnosis and treatment of disease. The conscientious man will sooner or later find that he is rarely justified in grasping such a straw as a single slightly positive Wassermann to save himself from a bewildering diagnostic dilemma.

CANCER CONTROL*

Although the present state of knowledge of cancer is not sufficient to permit of the formulation of such procedures for the suppression of this malady as have been successfully employed for the control of infectious diseases, there is enough well established fact and sound working opinion concerning the prevention, diagnosis and treatment of cancer to save many lives, if this information is carried properly into effect.

1. The causation of cancer is not completely understood, but it may be accepted that for all practical purposes cancer is not to be looked upon as contagious or infectious.

2. Cancer itself is not hereditary, although a certain predisposition or susceptibility to cancer is apparently transmissible through inheritance. This

does not signify that, because one's parent or parents or other members of the family have suffered from cancer, cancer will necessarily appear in other persons of the same or succeeding generation.

3. The control of cancer, so far as this subject can be understood at the present time, depends upon the employment of measures of personal hygiene and certain preventive and curative measures, the success of which depends upon the intelligent co-operation of the patient and physician.

4. Persons who have cancer must apply to competent physicians at a sufficiently early stage in the disease, in order to have a fair chance of cure. This applies to all forms of cancer. In some forms early treatment affords the only possibility of cure.

5. Cancer in some parts of the body can be discovered in a very early stage, and if these cases are treated properly the prospect for a permanent cure is good.

6. The cure of cancer depends upon discovering the growth before it has done irreparable injury to a vital part of the body and before it has spread to other parts. Therefore, efforts should be made to improve the methods of diagnosis in these various locations and the treatment of the cancers so discovered.

7. The public must be taught the earliest danger signals of cancer which can be recognized by persons without a special knowledge of the subject, and induced to seek competent medical attention when any of these indications are believed to be present.

8. Practitioners of medicine must keep abreast of the latest advances in the knowledge of cancer in order to diagnose as many as possible of the cases of cancer which come to them.

9. Surgeons and radiologists must make constant progress in the refined methods of technic which are necessary for the diagnosis and proper treatment not only of ordinary cases but of the more obscure and difficult ones.

10. There is much that medical men can do in the prevention of cancer, in the detection of early cases, in the referring of patients to institutions and physicians who can make the proper diagnosis and apply proper treatment, when the physicians themselves are unable to accomplish these results. The more efficient the family doctor is, the more ready he is to share responsibility with a specialist.

11. Dentists can help in the control of cancer by informing themselves about the advances in the knowledge of the causes of cancer, especially with relation to the irritations produced by imperfect teeth and improperly fitting dental plates. They can also help by referring cases of cancer which they discover to physicians skilled in the treat-

*Statement of the Facts and Opinions Agreed to by the International Meeting on Cancer Control Held at Lake Mohonk, N. Y., U. S. A., September 20-24, 1926.

ment of cancer in this location. It may be doubted whether all dentists fully realize the help which can be obtained from X-ray photographs in revealing not only the state of the teeth but the condition of the bone surrounding them.

12. Medical students should be instructed in cancer by the aid of actual demonstrations of cancer patients, and this to a sufficient extent to give them a good working knowledge of the subject.

13. The most reliable forms of treatment, and, in fact, the only ones thus far justified by experience and observation, depend upon surgery, radium and X-rays.

14. Emphasis should be placed upon the value of the dissemination of the definite, useful and practical knowledge about cancer, and this knowledge should not be confused nor hidden by what is merely theoretical and experimental.

15. Efforts toward the control of cancer should be made in two principal directions: (1) the promotion of research in order to increase the existing knowledge of the subject, and (2) the practical employment of the information which is at hand. Even with our present knowledge many lives could be saved which are sacrificed by unnecessary delay.

INTER-STATE POST GRADUATE ASSEMBLY OF NORTH AMERICA

The meetings of this assembly were held at Cleveland, Ohio, from October 18-22, 1926.

The public auditorium was ideally suited to accommodate an attendance of over four thousand physicians and surgeons. By the use of amplifiers the voice of the speaker was distinctly heard by every one in attendance. Two powerful spot-lights were thrown upon the speaker and patients so as to make it easy for the audience to follow the speaker in demonstrations upon the patient.

For 4,000 physicians and surgeons to rise at 5 o'clock A.M. Central Time in order to attend a medical and surgical clinic at 6 o'clock, to walk from 6 to 10 blocks at this hour, with the electric lights still burning, sometimes through rain and sleet; then to attend three daily sessions with only short intermissions for lunch and dinner and to be dismissed at night at 10:30 o'clock, may seem somewhat overdrawn, nevertheless it is true and it was inspiring to those present who felt doubly proud to be associated in a

profession with men who are so desirous to acquire further knowledge with which to benefit humanity.

The program was arranged interestingly, medical and surgical clinics alternating. The speakers were the best authorities from the United States, Canada, South America and Europe. There was not a dull moment, it was indeed a post-graduate congress full of instruction and inspiration, the instruction so practical and still containing sufficient original work to make the four thousand attendants feel well repaid for their time and effort.

The Medical Association of Georgia was represented by the following ten members:

Gainesville, Dr. J. H. Downey; Atlanta, Drs. W. L. Ballenger, W. E. Barber, M. T. Benson, E. S. Byrd, O. S. Cofer, E. C. Davis, L. M. Gaines, C. W. Roberts, Theo. Toepel.

We all feel that instead of only ten from Georgia we should be represented by at least one hundred doctors at the next assembly, which meets in 1927 in Kansas City, Mo.

THEODORE TOEPEL.

EFFECT OF ULTRAVIOLET IRRADIATION ON HEALTH OF GROUP OF INFANTS

Irradiation of infants with the mercury vapor lamp was found by Louis H. Barenberg, Irving Friedman and David Green, New York (Journal A. M. A., Oct. 2, 1926), to be associated with an initial increase in weight. This did not continue during the subsequent months. Irradiation did not lessen the number of infections during the winter. During the spring, however, there was a definite decrease in infection. Ultraviolet rays did not protect against or mitigate pertussis. The hemoglobin was not increased by irradiation, but its percentage rose with the advent of spring and the diminution of infections. Irradiation improved the texture of the skin. A coincidental outbreak of varicella occurred during the period of irradiation. Twelve of the irradiated and fourteen of the non-irradiated children developed varicella. The eruption of the former group was more intense than that of the latter. It was of interest to note the effect of the rays on the skin. Instead of the reddish tan observed after exposure to the sun, the skin became muddy brown, a tint that persisted for about a month after irradiation. The turgor of the muscles was greatly improved; comparing the tonicity of the muscles of the poorest of the irradiated group with that of the best nourished infants, the superiority of the former in this respect was unquestionable.

District and County Societies

District Editors

- | | |
|---------------------------------|--------------------------------|
| 1. Long, W. V., Savannah. | 7. McCord, M. M., Rome. |
| 2. Watt, C. H., Thomasville. | 8. Carter, D. M., Madison. |
| 3. Greer, Chas. A., Oglethorpe. | 9. Bennett, J. C., Jefferson. |
| 4. Peniston, Joe B., Newnan. | 10. Lee, F., Lansing, Augusta. |
| 5. Fitts, Jno. B., Atlanta. | 11. Mixson, W. D., Waycross. |
| 6. Thompson, O. R., Macon. | 12. Cheek, O. H., Dublin. |

1926 HONOR ROLL

1. Randolph County, Dr. G. Y. Moore, Cuthbert, November 5, 1925.
2. Warren County, Dr. Robert C. McGahee, Warrenon, December 22, 1925.
3. Dougherty County, Dr. Albert S. Bacon, Albany, January 4, 1926.
4. Upson County, Dr. H. A. Barron, Thomaston, January 7, 1926.
5. Lamar County, Dr. John M. Anderson, Barnesville, January 21, 1926.
6. Crisp County, Dr. J. N. Dorminy, Cordele, February 4, 1926.
7. Evans County, Dr. D. S. Clanton, Hagan, February 13, 1926.
8. Stephens County, Dr. C. L. Ayers, Toccoa, March 12, 1926.
9. Emanuel County, Dr. R. C. Franklin, Swainsboro, March 20, 1926.
10. Turner County, Dr. J. H. Baxter, Ashburn, March 31, 1926.
11. Screven County, Dr. J. C. Cail, Sylvania, April 23, 1926.
12. Wayne County, Dr. M. N. Stow, Jesup, May 4, 1926.
13. Pike County, Dr. M. M. Head, Zebulon, May 4, 1926.
14. Terrill County, Dr. Logan Thomas, Dawson, May 11, 1926.
15. Forsyth County, Dr. Marcus Mashburn, Cumming, July 2, 1926.
16. Franklin County, Dr. B. T. Smith, Carnesville, August 12, 1926.
17. Ben Hill County, Dr. L. S. Osborne, Fitzgerald, August 24, 1926.

1927 HONOR ROLL

1. Crisp County, Dr. J. N. Dorminy, Cordele, October 6, 1926.
2. Randolph County, Dr. G. Y. Moore, Cuthbert, October 29, 1926.

SEVENTH DISTRICT MEDICAL SOCIETY OF GEORGIA

Cartersville, Ga., Sept. 29, 1926.

The Sevsneth District Medical Society of Georgia met in the City Hall of Cartersville, as the guests of Bartow County Medical Society, Wednesday, September 29, 1926, Dr. W. E. Benson, President and Dr. M. M. McCord, Secretary.

Invocation was led by Rev. Ike A. White.

Welcome in behalf of the city was extended by Hon. H. C. Nelson, mayor of Cartersville, while Dr. S. M. Howell represented the Bartow County Medical Society in his generous words of welcome.

The response to the addresses of welcome was delivered by Dr. A. C. Shamblin of Rome.

The minutes of the April meeting were read and adopted.

Dr. J. P. Bowdoin made a very interesting report on public health and legislation.

Dr. M. M. McCord, Councillor for the seventh district, made a brief report urging more activity on the part of the county secretaries in securing the membership of all the eligible physicians in the respective counties for the Medical Association of Georgia.

The scientific papers were next taken up as follows:

1. A Few Special Head Problems of General Medical Interest.

Ross P. Cox, Rome

2. Acute Purulent Ethmoiditis.

H. J. Ault, Dalton

3. Periodical Physical Examination of the Apparently Healthy.

V. O. Harvard, Pres. Med. Assn. of Georgia

4. Report of Several Cases of Enlarged Thymus Glands.

R. C. Maddox, Rome.

Discussed by Drs. McCord and Bunce

5. Cause and Treatment of Hydronephrosis.

John L. Garrard, Rome

6. Report of Renal Calculus with Kidney Removed.

C. B. Elder, Marietta

Discussed by Drs. Garrard, Benson and Cosby Swanson

7. Radium as a Therapeutic Agent.

J. T. McCall, Rome

8. Acute Toxic Dermatitis.

Cosby Swanson, Atlanta

Discussed by Drs. Bailey and Kemp

9. The Psychic Phenomena of the Human Mind.

N. M. Owensby, Atlanta

A motion was made and carried that the society endorse the vital statistics bill now before the people of the state for ratification.

Resolution offered by W. P. Harbin and passed extending a rising vote of thanks and appreciation to the Bartow County Medical

Society for the wonderful hospitality conferred upon their guests during the day, especially for the magnificent lunch tendered the visitors at the Rotary Hall.

An invitation extended to the society by Dr. A. F. Routledge, President, Floyd County Medical Society, for the next meeting, which will be the first Wednesday in next April, to be held in Rome, and the same was accepted.

There being no further business the meeting adjourned at 4:00 P.M.

Respectfully,

M. M. McCord, Secretary.

Woman's Auxiliary Medical Association of Georgia

OFFICERS

President.....Mrs. C. W. Roberts, Atlanta Parliamentary.....Mrs. Allen H. Bunce, Atlanta
Vice-President.....Mrs. W. L. Davis, Albany Secretary-Treasurer, Mrs. Marion T. Benson, Atlanta
Honorary President, Mrs. James N. Brawner, Atlanta

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2nd District.....Mrs. Gordon Chason, Bainbridge	8th District.....Mrs. Paul Holliday, Athens
3rd District.....Mrs. R. H. Pate, Unadilla	9th District.....Mrs. J. H. Downey, Gainesville
4th District.....Mrs. R. S. O'Neal, LaGrange	10th District.....Mrs. W. W. Battey, Sr., Augusta
5th District.....Mrs. Marion C. Pruitt, Atlanta	11th District.....Mrs. B. H. Minchew, Waycross
6th District.....Mrs. C. H. Richardson, Jr., Macon	12th District.....Mrs. T. C. Thompson, Vidalia

COMMITTEES

COMMITTEE ON PROGRAM AND ENTERTAINMENT

Mrs. H. M. Fullilove, Chairman.....Athens
Mrs. Paul Holliday.....Athens
Mrs. W. H. Cabaniss.....Athens
Mrs. R. M. Goss.....Athens

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Mrs. J. Cox Wall, Chairman.....Eastman
Mrs. Chas. C. Hinton.....Macon
Mrs. B. H. Minchew.....Waycross

COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION

Mrs. O. H. Matthews, Chairman.....Atlanta
Mrs. T. F. Abercrombie.....Atlanta
Mrs. J. W. Daniel.....Savannah

FINANCE COMMITTEE

Mrs. Nichols Peterson, Chairman.....Tifton
Mrs. A. H. Black.....Thomaston
Mrs. A. S. M. Coleman.....Douglas

COMMITTEE ON ORGANIZATION

Mrs. L. F. Lanier, Chairman... Rocky Ford

EXECUTIVE BOARD MEETING

On Tuesday, November 16th, at ten o'clock there will be an Executive Board Meeting of the Woman's Auxiliary to the Medical Association of Georgia.

Consideration of matters of importance, such as organization of districts, junior membership, dues, organized work for the distribution of *Hygeia* and such other business as may properly come before the board for consideration.

This meeting will be held at the Academy of Medicine in Atlanta during the sessions of the Southern Medical Association. Full attendance is desired.

NEXT ANNUAL MEETING

Begin now to make your plans to be in Athens next May at the next annual meeting of the Auxiliary. The largest attendance in our history is expected. Support your Auxiliary.

TREATMENT OF FRACTURES

BY CHARLES LOCKE SCUDDER, A.B., PH.B.,
M.D., F.A.C.S.

The tenth edition of this popular book comes to us with a number of additions which will make for it new friends. Contributions by Dr. J. C. Bloodgood on Pathological Fractures, Dr. F. W. Bancroft on Bone Repair, Dr. K. T. Thoma on Fractures on the Maxilla and Mandible, James B. Mennell on Massage, Dr. F. L. Richardson on Anesthesia and Anesthetics and Dr. E. D. Truesdell on Birth Fractures give additional value to this book.

His generous way of giving credit to his collaborators stands out prominently throughout the pages. The various methods of a proper anatomical reduction are emphasized, nothing seems to be overlooked which gives the reader an idea of the numerous ways in which a fracture might be reduced and that judgment and experience ultimately decide the choice of procedure.

The new chapters in which are stressed the underlying principles, when to use the non-operative or traction treatment or the operative, open reduction treatment are worth while to the general practitioner as well as to the specialist.

This book is published by the W. B. Saunders Company, Philadelphia, Pa.

THEODORE TOEPEL, M.D.

Modern Clinical Syphilology, by John H. Stokes, M.D., Professor of Dermatology and Syphilology in the School of Medicine, University of Pennsylvania. Octavo of 144 pages with 885 illustrations and text figures and more than two hundred detailed case histories. Publishers: W. B. Saunders Company, West Washington Square, Philadelphia. Price, Cloth \$12.00 net.

The Surgical Clinics of North America, August, 1926 (Issued serially one number every other month.) Volume VI, Number III. 324 pages with 101 illustrations. Per clinic year, February, 1926, to December, 1926. Paper, \$12.00; cloth, \$16.00 net. Publishers: W. B. Saunders Company, West Washington Square, Philadelphia.

Materia Medica and Therapeutics, Including Pharmacy and Pharmacology, by Reynolds Webb Wilcox, M.A., M.D., LL.D., D.C.L., Professor of Medicine (Retired) at the New York Post-Graduate Medical School and Hospital; Fellow of the American Association for the Advancement of Science; Consulting Physician to the St. Mark's Hospital, etc. Eleventh Edition, Revised in accordance with the U. S. Pharmacopoeia X, with Index of Symptoms of Diseases. 8vo., cloth, 798

pages. Price, \$5.00 net. P. Blakiston's Son & Company, Philadelphia.

This valuable book, the Eleventh Edition, treats of official drugs and preparations only. It is clear and concise, and is condensed as much as the author thought would be allowable. It is divided into two principal parts, the first part is entitled "Materia Medica and Pharmacy," and the second part "Pharmacology and Therapeutics."

The second part offers very elaborate accounts of the pharmacological action and therapeutic uses of the official remedies. And the author presents the latest views of the highest authorities along these lines.

The appearance of the United States Pharmacopoeia X, has necessitated the writing this new Eleventh Edition.

The medical student will find this volume a very useful reference book, and the physician also will find it very valuable in his practice, because it gives full details regarding treatment.

RAIFORD T. WARNOCK, M.D.

NEWS ITEMS

Dr. Theodore Toepel, Atlanta, attended the meeting of the International Post-Graduate Congress held in Cleveland, Ohio, October 18 to 23, 1926.

Dr. C. K. Wall, a prominent physician, formerly of Thomasville, and the efficient Secretary of the Thomas County Medical Society for years and an active member of our Association, has removed to Miami. He has the best wishes of hundreds of friends throughout Georgia for success and happiness in his new home.

Dr. I. A. Ferguson announces the opening of offices for the practice of medicine and surgery at 1115-16 Atlanta National Bank Building, Atlanta.

The physicians of Monticello and Jasper County offered their services for a free clinic in Monticello sponsored by the Parent-Teachers' Association to administer Toxin-Antitoxin to the children of their county.

Dr. T. Lowry, Cartersville, announces that his hospital is now ready and open for the reception of patients after the completion of additional rooms and the installation of more modern equipment.

The Georgia Medical Society, Savannah, endorsed the campaign for funds to build the Charity Hospital and passed resolutions commending their citizens for their effort to raise funds to finance, erect and equip the institution.

The Physicians of Cartersville held the first of a series of clinics for school children in Cartersville on September 14th. The people of Bartow County are urged to take advantage of the clinics which will be held from time to time.

Dr. E. L. Jelks, Quitman, entertained the members of the Brooks County Medical Society at his home on September 6th. A general program for county health work was discussed and the society endorsed a plan for the commissioner of health to give smallpox vaccine, typhoid inoculation and toxin-antitoxin. A delicious ice course was served after the meeting.

The American Dietetic Association held its Ninth Annual Meeting in Atlantic City, New Jersey, October 11, 12, 13.

The physicians of Lincolnton are to be commended for their work in administering toxin-antitoxin to all children under eight years of age who attended the local clinic sponsored by the Woman's Club. One hundred and fifty children were treated at the first clinic held on September 13th. The State Board of Health provided the serum for all that would take the treatment.

The Walton County Hospital, Monroe, held its first clinic September 22d for administering toxin-antitoxin. About seventy-five children registered for the first clinic. Clinics have been held each week on Wednesdays and Saturdays from two to five o'clock.

Dr. E. B. Miller, Claxton, went to Florida on September 19th to administer first aid to the injured in the Florida disaster. A number of people from Claxton were in Miami, including Dr. Walter C. Smith and daughter.

Dr. G. L. Kelly, Professor of Anatomy, Medical Department of the University of Georgia, Augusta, has been in New York taking post-graduate work at Cornell University.

Officers of the Fulton County Medical Society notified Governor Clifford Walker and the Florida officials that they were ready to contribute their quota of physicians for relief work in the storm area of Florida.

Dr. A. H. Frye, Griffin, has been in New York for several weeks at the New York Polyclinic Medical School and Hospital taking a course in Gynecological Surgery.

The Floyd County Medical Society was entertained at the Harbin Hospital, Rome, on September 17th, at dinner served in the nurses' dining hall. Dr. M. M. McCord read a paper on Eczema of Childhood; Dr. A. F. Routledge read a paper on Spina Bifida.

Dr. J. Calvin Weaver, 58 East Ellis Street, Atlanta, will be away for the next three months in post-graduate work, and will divide the time between the University of Pennsylvania, Philadelphia, and the Mayo Clinic, Rochester, Minnesota.

Dr. E. M. Baker, Jr., has opened offices in Savannah for the practice of general medicine. He is a graduate of Jefferson Medical College of Philadelphia.

Dr. Mercer Blanchard, Columbus, is in charge of the work of examining the school children of the city, assisted by Mrs. M. J. Brittlng, nurse.

Dr. George Solomon, Savannah, is chairman of the team organization in the campaign to raise funds for the Charity Hospital. He is very enthusiastic and says they are sure to win with every man in his place and doing what he should do.

Dr. T. F. Abercrombie, Atlanta, Commissioner of Health, Georgia State Board of Health, states that plans have been completed for the treatment by expert physicians in the hospitals of the state of all school children suffering from serious physical defects. All railroads represented by the Southeastern Passenger Association will sell them tickets at one-half regular fare to and from the hospitals for treatment.

The International Tuberculosis Association, National Tuberculosis Association and the Southern Tuberculosis Association met in Washington, October 1. Drs. T. F. Abercrombie, J. P. Bowdoin, Z. S. Cowan, J. H. Bradfield, Atlanta, and E. W. Glidden, Alto, were delegates.

There were 1,757 physicians and surgeons to each million of population in the United States in 1850, five years ago there were only 1,372 doctors to each million of population.

Doctors W. D. Mixson, Wm. C. Hafford, W. F. Reavis, George E. Atwood, T. L. DeLoach, and T. C. Williams of Valdosta, aided in the relief work at Hollywood, Florida, under the auspices of the Wayeross Chapter of the Red Cross.

Drs. J. E. Clay and J. E. Bridges of Macon, went to Miami in response to a call for two prac-

tiating physicians from Macon. The physicians represented the local chapter of the Red Cross.

The Second District Medical Society held its semi-annual meeting at the John D. Archbold Memorial Hospital, Thomasville, October 8th. Dr. J. H. Hendry, Bainbridge, read a paper on Renal Tuberculosis; Dr. Ralph Green, Jacksonville, The Diagnosis of Intracranial Neoplasms; Dr. Harold D. Van Schaick, Jacksonville, Diagnosis and Treatment of Cranial and Spinal Injuries; Dr. V. P. Sydenstricker, Augusta, Syphilis of the Cardio-Vascular System; Dr. Leo. D. Parry, Thomasville, The Effect of Radium and X-ray upon the Cancer Cells; Dr. J. J. Crumbley, Sylvester, Diarrhoeic Prophylaxis.

Dr. O. R. Styles, Bowdon, has been in charge of the clinics held there for administering toxin-antitoxin to the children of that vicinity, assisted by the members of the Woman's Club.

The Seventh District Medical Society held its semi-annual meeting in Cartersville, September 29, guests of the Bartow County Medical Society. The physicians on the Scientific program were: Ross P. Cox, Rome; C. H. McArthur, Rome; V. O. Harvard, Arabi, President, Medical Association of Georgia; R. C. Maddox, Rome; C. T. Nolan, Marietta; John L. Garrard, Rome; C. Van Wood, Cedartown; J. T. McCall, Rome; Cosby Swanson, Atlanta; C. B. Elder, Marietta; N. M. Owensby, Atlanta.

CHLORETONE PER RECTUM IN POST-OPERATIVE CASES

(Continued from page 443)

Chloretone	grains 20
Soda Bicarb.....	drams 1
Glucose	drams 2
Warm Saline.....	ounces 8

as a retention enema and it is repeated every six hours for forty-eight hours. We have secured better results with the retention enemata than by the Murphy drip method.

The advantage of the Chloretone is that it takes effect before the preliminary hypodermic wears off, prolonging the period of sleep to from three to six hours, thereby avoiding much of the worst part of the post-operative stage.

The patient requires much less opiates and often none is necessary, depending upon the patient and the nature and extent of the operation. We have often had cases of cholecystectomy, gastro-enterostomy, appendectomy and pelvic operations in which no

opiates were required post-operative. These patients sleep more, have less nausea and vomiting and by having less or no morphine, peristalsis is re-established early, permitting the patient to expel flatus freely. This prevents tympanites which is our most frequent source of post-operative pain. The patient voids more promptly, avoiding catheterization and subsequent cystitis.

Chloretone is a combination product of acetone and chloroform with the formula $C_4 H_7 OCl_3$. It is a sedative and hypnotic, sparingly soluble in water and can be administered either orally or by rectum. The dose varies from five to fifteen grains by mouth and fifteen to forty grains per rectum. In large doses it is toxic, has an accumulative action, and is eliminated slowly.

We have used Chloretone enemata for several years both in our city hospital service and in our private cases. We have had no bad results.

CONCLUSIONS

The use of Chloretone per retention enemata in post-operative cases is a decided advantage. It produces longer periods of rest and reduces the nausea and vomiting to a minimum. Less opiates are required which permits less interference with peristalsis and voiding. It makes the patient more comfortable and hastens convalescence.

AN AID TO THE MEDICAL PRACTITIONER

Physicians treating venereal disease cases have frequently expressed a need for a pamphlet containing instructions and advice to be given to venereal disease patients. Due to the nature of these diseases and the regimen which proper treatment requires, the need for such a publication has long been apparent. Some time ago the U. S. Public Health Service prepared a pamphlet known as, "Important Confidential Information," expressly for this purpose. The leaflet is in two parts, one dealing with Gonorrhea and the other with Syphilis. Advice is given among other points on the following: Importance of continuing treatment until cured, proper diet while under treatment, proper care to prevent the spread of the disease, the futility and danger of quacks and self-treatment, sex conduct and marriage.

Many physicians have found this publication a valuable aid in securing the co-operation of the patient while under treatment and also as an aid

in holding the patient until cured or rendered non-infectious. Copies of this publication are available from most State Departments of Health or they may be secured by writing to the U. S. Public Health Service, Washington, D. C.

COMMUNICATION

To the Editor:

Just a few lines to let you know that the letter you wrote in reference to the invitation of Professor Eugene Joseph of Berlin, went through O.K. and that Dr. Raymond Thompson of Charlotte, N. C., received a cable from Professor Joseph stating that he will read a paper at the Urological Section of the Southern Medical Association, November 16th on "X-ray in Urology."

I believe that it would help if you insert a few lines in the next edition of the JOURNAL in reference to the presence of Professor Joseph at the coming meeting of the Southern Medical Association, as many Urologists would arrange to be at the meeting in order to meet such a distinguished guest.

Sincerely,

S. J. SINKOE, M.D.

Atlanta, Oct. 4th.

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ANNOUNCEMENT

Our success, due to the loyalty of our many friends, forces us to seek larger quarters. We wish to announce that on and after the 1st of October, we will be located at 58 Auburn Avenue, corner Ivy Street. We take this opportunity to thank you most heartily for your co-operation and pledge to you an ever growing and more serviceable institution.

ESTES SURGICAL SUPPLY COMPANY
WALNUT 1700 ATLANTA, GA.

OBITUARY

Dr. R. G. Jackson, Brunswick, died at his home on First Avenue, September 24, 1926, after suffering for several months from a stroke of paralysis. He was born September 25, 1862, in Mansfield, Louisiana. He graduated in medicine from Tulane University of Louisiana School of Medicine and after practicing medicine in New Orleans for many years, made his home in Atlanta where he married Miss Elizabeth Renfroe in 1895. He gave up his practice in 1900 and removed to Brunswick in an effort to regain his health and entered the insurance business. Rev. O. P. Gilbert, assisted by Rev. Guyton Fisher, conducted the funeral services from the residence. Interment was in Palmetto Cemetery.

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S. T. RUCKER, M. D.,
Director Medical Department
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THE JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA

DEVOTED TO THE WELFARE OF THE MEDICAL PROFESSION OF GEORGIA
PUBLISHED MONTHLY under direction of the Council

Volume XV

Atlanta, Ga., December, 1926

No. 12

Original Articles

CERTAIN PROBLEMS IN THE EARLY DIAGNOSIS OF CANCER OF THE MOUTH REGION*

FREDERICK M. JOHNSON, M.D., TOR.
Atlanta

It has been said, and said with truth, that the results of present day methods of cancer therapy will hardly be improved upon until more favorable cases are encountered. The scope of surgical and radiation technique, although greatly broadened during the last quarter century, is now at a stand still, and any hope for future progress must rest on the early co-operation of patient with physician. By this, and this alone, will cancer be recognized while it is a local manifestation, and not a general disease. It is to the problem of early diagnosis in relation to cancer of the mouth region, that special reference will be made in this article.

The incidence of cancer of this situation is only appreciated by recalling that it is placed second in frequency to uterine cancer. Furthermore, since soft tissue sarcoma is so unusual, carcinoma embraces more than 95% of all malignant neoplasms of the nose, mouth and throat. Thus one is seldom justified in making a diagnosis of sarcoma without microscopic confirmation. The exact type of cancer is squamous-cell in nearly all instances. True, it is, basal-cell carcinoma, mixed tumors of aberrant salivary tissue, and more frequently cylindrical-cell carcinoma are occa-

sionally encountered, the latter in the maxillary and nasal sinuses; but with these exceptions any departure from the squamous type is so unusual as to be noteworthy.

Squamous-cell carcinoma carries inherent characteristics that are outstanding under all circumstances. In the region under discussion, where the tumor is relatively accessible, it has familiar features in both the precancerous condition and the early stage of maturity, but nevertheless it is dreadful in its mortality rate of 90%. To what may be ascribed this almost hopeless state of affairs? Failure to recognize the importance of precancerous or early lesions, temporizing with small but fully developed cancers, badly planned and extravagant methods of attack in mild cases, are errors that lead to disaster, and explain in many cases the dread which forces the sufferer to conceal the existence of his disease.

Consideration of the early clinical diagnosis necessitates the introduction of certain criteria, all, or nearly all of which, are present in a large majority of cases.

1. Aetiological Factors and Precancerous Lesions.

The experience of many observers has indicated the close association in the mouth of leukoplakia, chronic fissures, papillomas, fibromas, and simple erosions with carcinoma production. No region of the body so well fulfills Billroth's doctrine of the importance of chronic irritation. Tobacco abuse, a rough tooth or denture, syphilitic change in the epithelium and sub-epithelial tissues and chronic tooth infection, are capable of initiating a tis-

*From the Radium Department of the Steiner Clinic.

*Read before the Medical Association of Georgia, Albany, Ga., May 12, 1926.

sue response, which in some instances is the cancer itself, in others an intermediate stage. Cancer rarely occurs in a clean mouth, where the normal alkaline reaction of the saliva is retained. If a lesion is suspicious, the presence of one or more causative agents, with precancerous changes elsewhere in the mucosa, is valuable confirmatory evidence of malignant transformation.

A short time ago I had under observation and treatment an elderly male patient suffering from advanced carcinoma of the mucosa of the lower jaw, which had arisen on long-standing leukoplakia. The opposite half of the mandible was likewise the seat of extensive leukoplakia, and during the period that he was under my direct care—some 8 months—I witnessed in this a definite and rapid malignant change, so that, within eight weeks a neoplastic ulcer the size of a nickel was well established and confirmed microscopically. Multiple foci of origin of squamous-cell cancer has been occasionally observed in the superficial glossitis of syphilis.

2. Age.

Cancer of the mouth region like cancer elsewhere is unusual before the 5th decade; perhaps it is better to say more common after the 4th. If occurring earlier, it runs an active and malignant course. There is in attendance at the Steiner Clinic a boy, age 19, suffering from carcinoma of the epiglarynx, which is adopting a very atypical behavior by the formation of bulky chest metastases.

3. Sex.

The preponderance of this type of growth in men is noteworthy. Women are affected in not more than 15 to 20% of cases, and probably reflects the importance of tobacco and other forms of chronic irritation as causative agents. In certain parts of England, cancer of the lip is spoken of as "countryman's cancer" because of its frequency among agricultural laborers. The custom of smoking a short stemmed, dirty pipe, and the drying effect on the lips of the windy, cold weather to which these people are exposed, are important factors in the production of the tumor. A smoker's burn of lip or tongue is serious if neglected.

Squamous-cell carcinoma of the laryngopharynx exhibits the most remarkable example known in the study of malignant disease, of the primary location of the tumor being determined by the sex of the patient. It is a fact, that the post-crioid or hypopharyngeal cancer is practically limited to women, while tumors around the upper laryngeal opening, (epilaryngeal carcinoma), on the one hand, and of the cervical oesophagus on the other, although not entirely limited to men, show a strong tendency for that sex. In addition, the post-crioid lesion is peculiar in developing in relatively young persons.

4. The First Warning.

This naturally varies in the different situations. On the lip, a chronic fissure, a simple erosion or wart, or, as the patient states, a fever-sore that does not heal, antedates the tumor by several weeks or months. When the disease originates in the mucosa of the upper and lower jaws, a loose and aching tooth so often attracts attention, that many of these patients are first observed by members of the dental profession. As yet the essential lesion is unrecognized, and only after teeth are extracted is it discovered that the sockets do not heal, but become filled with a new tissue which for a time is believed to be proud flesh. With cancer commencing elsewhere, the mucosa of the cheek or tonsillar area, the tongue, the floor of the mouth, the palate and pharynx, soreness is invariably the first definite symptom. In middle-aged and elderly men, any kind of abnormal sensation persistently felt in the same part of the mouth or throat, should be regarded seriously.

In quiescent cavities, like the maxillary and nasal sinuses, carcinoma unfortunately gives no warnings until the growth is well established. In such situations, the tumor itself does not produce specific clinical manifestations, and it is only when a bulky mass is present, that mechanical disturbances appear. Then too, inflammatory processes may predominate, and an incomplete diagnosis of empyema of the antrum or simple nasal polyp, may delay proper recognition of the basic disease until the neoplasm is hopelessly advanced. Persistent pain or burning over the cheek due to irritation of the fifth nerve, which is re-

ferred later to the teeth or orbit, is a common first symptom. Nasal obstruction, with purulent and blood-stained discharge is noted when the tumor arises from the nasal lining, or involves the nasal sinus from a primary origin in the antrum. Many carcinomas of the antrum grow upwards to erode the floor of the orbit, with the result that visual disturbances necessitates the services of the ophthalmologist.

A tumor of the vocal cord, or one arising extrinsically in the pyriform sinus and secondarily interfering with the cord movements, causes an alteration in the voice, varying all the way from a slight change in pitch to a very noticeable huskiness. Persistence of this symptom calls for a painstaking laryngeal examination. When the lower pharynx is the seat of disease, (post-cricoid growth), there is usually difficulty in swallowing some little time before the advance of the tumor forwards interferes with voice production. This lesion is most difficult to diagnose with certainty in its incipency. However, direct instrumental examination shows the presence of frothy mucus and oedema of the arytenoid mucosa, long before an ulcer edge is observed.

5. Rapidity of Growth.

Squamous-cell cancer is characterized by a mode of development that shows little disposition to regress, or even remain stationary. Although blood supply and inflammation may cause temporary variations in its bulk, once an autonomous existence is established, growth is persistent, and in well nourished individuals, is rapid. A blanket acceptance of the converse, however, is dangerous, and even though the suspected lesion does not develop, suspicion must be raised simply because it persists.

6. The General Health of the Patient.

There is no reason for health impairment by an early cancer of the mouth area. Only when the lesion is advanced, and nutrition suffers because of pain and inability to take solid food, does loss of weight and anaemia result. Therefore, if the general ill-health is out of proportion to the local tumor, it is well to suspect a constitutional malady like tuberculosis or syphilis, both of which may be present with cancer, and cause ulceration in the mouth.

A lesion accompanied by mild toxemia of recent onset is at times confusing. Recently, a middle-aged woman was referred to the clinic because localized ulceration involving the palate and upper alveolar process had been present for about three weeks. To say the least, it was very suggestive of tumor, but the septic appearance of the patient, tender cervical lymph nodes and slight fever, warranted further investigation, with the result that bacteriological study of a surface swab, revealed the typical organisms of Vincent's angina.

7. Location of Lesion.

The mucosa, anywhere in the mouth and associated cavities, may be the seat of carcinoma. There are, however, points of election, a knowledge of which is helpful. Thus cancer occurring characteristically on the lower lip, close to the mucocutaneous junction, is so infrequent on the upper lip as to make it a novelty.

On the other hand, the extra-genital chancre of syphilis is commonly noted on the upper lip. Carcinoma of the tongue and cheek bear a definite relationship to trauma from ragged teeth or ill-fitting denture, and consequently arises in close proximity to the jaws; often the offending tooth makes an impression for itself in the cancer mass. A tumor of the anterior two-thirds of the tongue growing from the dorsum, close to the mid-line is seldom cancer; it is very probably cancer if arising close to the edge, from the sides and tip. Gumma is the common swelling of the dorsum, and at first is solid but later, ulcerated and sloughy. The posterior third of the tongue, i. e., the part behind the circumvallate papillae is different. Here cancer does develop close to the mid-line, is deeply situated and ulcerates late. Some undoubtedly arise in close association with remnants of the thyroglossal duct.

Not all carcinomas appearing on the palate and upper alveolar process are primary in that situation. Many are evidences of an origin within the antrum. From here, they may spread medially to the middle meatus of the nose, upwards to the orbit, or downwards to fungate into the mouth. Such wide-spread ex-

tension, renders an apparently early and localized intra-oral tumor entirely hopeless from the view-point of cure.

A few weeks ago, a colored patient was referred to the clinic because of an ulcerated growth of the posterior part of the upper alveolar process. Toothache was the first symptom, but following extraction, there was little relief, and ulceration around the sockets was hurried. Further examination disclosed a bleeding mass in the nasal passage and a slightly protruding eye, and in spite of the fact that symptoms had been present for 10 weeks only, radiographs revealed destruction of the inferior and medial orbital walls, and extension of the growth upwards into the frontal sinus.

Carcinoma of the tonsil commences in the over-lying mucous membrane, and very early creeps along the anterior pillar to entrench itself securely in the tongue.

8. Character of Lesion.

The earliest typical squamous-cell carcinoma of the mouth cavity that I have seen measured less than one-half cm. in diameter, and involved the floor of the mouth close to the frenum of the tongue. At this period it was a circular ulcer, and it is reasonable to assume that it originated as an ulcer in damaged epithelium. In the early stage, however, there are other distinct clinical types. It may arise as a wart, a fissure, or a solid, non-ulcerating nodule. If a wart, some, but not all, are cancerous from the outset. The features which indicate that a malignant change is taking place are rapid growth, ulceration and induration at the base. The differential diagnosis of simple papilloma from the papillary type of cancer, is at once difficult and important, and microscopic aid is reliable only when the specimen includes the base as well as the surface. Many of the cured cases of intra-oral cancer are in reality simple diffuse papilloma. A careful pathological examination of the complete tumor is, at times, necessary for an exact opinion. Occasionally, carcinomas of relatively large size are seen, principally in the tongue, in which the growth is downwards; in these cases the surface epithelium is still intact, but very thin. The tension that is present in the mass leads to the

conclusion that ulceration will not be long delayed, especially if the swelling has been explored for pus, by needle or scalpel. Following this, the actively growing mass literally will roll out in unmistakable fashion.

For practical purposes one must recognize two sharply divided clinical types of squamous-cell carcinoma, the infiltrating and the papillary. The former is an indurated ulcer, which extends actively in all directions, with pain, when well advanced, and much bloody discharge. The hardness can only be felt to be appreciated, and is probably the most impressive single feature. When coupled with the raised margin and depressed base, a definite clinical picture is formed. The papillary type in contrast, is softer in consistency, and while in some instances ulceration is complete, in others, a very thin layer of epithelium may cover certain of the papillary dendritic projections which constitute the base. It is an outgrowing rather than an ingrowing tumor, and for a considerable period in its life history develops by surface extension only. Needless to say the invasive habit of the infiltrating type hastens bone destruction, blood-vessel erosion, early metastasis and death. The papillary form is more amenable to treatment.

In marked contrast are the benign ulcers. The flat margin, the shallow glazed base and the complete absence of induration contribute essential features which are unmistakable in most instances.

The tenderness of malignant ulceration is present early, and cannot be distinguished by the patient from the soreness of the precancerous lesion. The pain that appears later is severe, and is due both to exposure of nerve terminals by ulceration, and to irritation of nerve trunks by pressure.

There are no criteria which serves to distinguish basal-cell and cylindrical-cell carcinoma from the squamous-cell variety. These types are accidentally discovered by the microscope.

The occasional presence of mixed tumors of salivary gland type has been referred to previously. They are a distinct clinical entity, and usually present few difficulties in diagnosis. The essential features are briefly these: Occurring equally in both sexes, com-

monly in the fourth and fifth decades, they are either quiescent for a long time, or grow slowly over a period of several years. They are found deep in the tissues of the cheek, in the lip, or in close connection with the orbit, but in 60% of the cases the tumor is in the palate, close to the alveolus, between bone and mucous membrane. They are encapsulated, firm, elastic and non-ulcerating, smooth and rounded like an olive, and do not involve bone or soft tissues to which they are intimately attached. Surgical cure is the rule if the whole tumor with its capsule is removed, otherwise recurrence is sure. The course of the recurrent tumor is more rapid, ulceration supervenes, bone invasion has been observed and metastatic deposits are frequent.

In the past, mixed tumors have been misinterpreted by both surgeon and pathologist, due in large measure to the bizarre structure of the lesion. In addition to basal epithelium, cartilage, mucinous and myxomatous tissue, and fibrous connective tissue, are present in varying proportions, and probably accounts for the fact that these tumors have been referred to in the past as adeno-epithelioma, adeno-cancer, cylindroma, endothelioma, and even sarcoma.

Unfortunately, text-books in describing buccal cancer place great emphasis on lymph node enlargement as constituting a valuable diagnostic sign. At the risk of stating a platitude, it must be emphasized that as an aid the sign is unnecessary, because at the stage of metastasis, the primary tumor is in most instances no longer early, its true character is recognized at a glance, and the time for successful treatment has passed. However, there are exceptions, apparently, to all rules. Now and then a nodal enlargement in the neck, is the first warning that all is not right. Its presence indicates the possibility of primary disease elsewhere. In such an instance, careful examination of the mouth, accessory sinuses and throat is indicated, with the result, that not infrequently, there is discovered, hidden away, a small, symptomless, extrinsic laryngeal cancer, usually of the pyriform sinus. The patient is doomed from the beginning.

9. Skiascopy.

And finally, a few words regarding the aid given in early diagnosis by the Roentgen ray. My colleague, Dr. Fike, assures me that in cases of cancer of the mucosa of the jaws, it is possible to distinguish the moth-eaten appearance of the bone due to actual invasion by carcinoma cells, from the clean-cut atrophy due to pressure by a new growth, and the hazy rarefaction of bacterial infection. This information is particularly valuable in cancer of the maxillary and nasal sinuses, where in the case of an early growth the process is hidden, and an estimation of its extent is materially helped by such opinion. Where the disease has not yet attacked the confining bone, cloudiness in the antrum cannot be distinguished from an accumulation of pus or other fluid. Under such conditions, exploration is certainly advisable.

DIFFERENTIAL DIAGNOSIS

As has been stated before, if the diagnosis is made of malignant neoplasia commencing in the lining mucosa of the mouth and associated cavities, the exact histological examination will prove it to be carcinoma in nearly all cases. Soft tissue sarcoma is limited practically to tonsillar and naso-pharyngeal lymphosarcoma, and polypoid angio-myxo-sarcoma of the nasal and maxillary sinuses.

Experience indicates, that the lesions most readily confused with cancer are those of syphilis, tuberculosis, actinomycosis, rarely Vincent's angina, and the simple erosions of non-specific causes.

SYPHILIS

Although a constitutional disease, there are characteristic manifestations found in the mouth region in each of the three stages. The primary chancre, which occurs occasionally on the upper lip, and has been observed within the mouth, on the tongue and even on the tonsil, is single, of short duration and runs an active course. The surrounding induration is less localized than in cancer, and may involve a wide area of surrounding tissue with typical inflammation. The ulcer itself is smooth, the edge flat, and the surface is covered with a thin gray membrane, all of which is in contrast to the localized, vigorous overgrowth of squamous-cell cancer. The younger

age of the patient, and the tender enlargement of the cervical lymph nodes, and the appearance of other manifestations are obvious signs of syphilis, all of which may be confirmed by laboratory methods. During the secondary stage of the disease, multiple, small, flat, superficial ulcers may form in the mouth, and when confluent have a sinuous outline. They are found usually on the sides and the tip of the tongue, the soft palate and tonsil. In the tertiary period, the smooth glazed tongue of superficial glossitis, and the leukoplakie patches of thickened epithelium, are gradations of a mucous membrane change that may occur anywhere within the mouth and on the lips, but is usually found on the dorsum and sides of the tongue. A diffuse hardness of the tongue musculature, described as syphilitic sclerosis bears little resemblance to cancer.

Perhaps the most confusing lesion is the gumma, usually commencing in patients under 40 as a localized intramuscular infiltration near the median line of the tongue, and generally towards the posterior part. At first hard, the swelling later becomes soft, and in time the overlying mucosa yields, and gives exit to the characteristic grumous material. The ulcer thus produced is round in shape and deeply excavated, the base being covered by a leathery slough. There is little induration, and a careful consideration of all facts of the matter, leaves little for doubt. When healed, however, by appropriate therapy, the resulting cicatrix is a definite pre-cancerous focus.

TUBERCULOSIS

Tuberculous ulcers of the mouth are occasionally diagnosed as cancer. This happens in those rare instances where the lesion is single and large. In a typical case the ulcers are multiple, commencing as small submucous abscesses which burst, leaving superficial, painful, irregular sores. They are chiefly found on the tongue, close to the sides and tip. At times the floor of the mouth and the back of the lower lip are affected. They lack all the essential features of neoplasm, and occur in young emaciated individuals, as a secondary sputum infection from advanced pulmonary or laryngeal tuberculosis.

ACTINOMYCOSIS

Rarely is the mouth involved, and then usually the tongue. New and Figi of the Mayo Clinic have collected a series of 38 cases. The diffuse inflammation of the lingual structure, with multiple sinuses is suggestive. Absolute diagnosis is made only on the recovery of the club-shaped fungus from the discharge.

RESUME

Why a suspicious lesion of the mucous membrane, or a suggestive train of signs and symptoms in a cavity, should first be treated as inflammatory, and only later as cancerous, or even pre-cancerous, is difficult to understand. Perhaps it is, that both the medical profession and the public are reluctant to think in terms of cancer because of its appalling seriousness. But it is the temporizing that makes the outlook so dark. It certainly would appear as better judgment to consider the more serious malady first, and to eliminate the possibility of its presence by all tests, clinical, Roentgen ray and laboratory. It has been said, with considerable justification, that in this connection, the Wassermann test is an instrument of greater harm than good. It is such a common occurrence for patients with advanced intra-oral cancer to be referred to the Steiner Clinic after having been subjected to the costly delay of not one month, but several months, intensive anti-syphilitic treatment, that we no longer marvel, but merely hope in silence for the day of earlier cases. True it is, that many, perhaps 35% of all buccal cancer patients have positive Wassermann reactions. However, it is not syphilis that kills, but cancer, and there is not one iota of proof that mercury, potassium iodid and arsenic exert any beneficial effect on cancer, even though the tissue changes that initiated the cancer are syphilitic. Suspect cancer first. If lesion is pre-cancerous, eliminate it by method that appears best indicated. Prevent its recurrence by dental attention, tobacco restriction and if constitutional disease is present treat it appropriately. In all cases the method is the same: first, clinical examination; second, as confirmatory, the scientific microscopical examination of a minute piece

of suspected tissue. There is no evidence that biopsy, carefully executed, does harm in a tumor that is already ulcerated.

DISCUSSION ON PAPER OF DR. JOHNSON

Dr. J. L. Campbell, Atlanta: In discussing Dr. Johnson's paper I want to stress the educational feature hinted at in the early part of his essay. He said "in order for any line of treatment to be successful one must make an early diagnosis." The Medical Association of Georgia has been conducting an educational campaign since 1919, when the cancer commission was created. During that time we have been endeavoring to bring this feature of the subject before the public by newspaper articles, public addresses, the medical journals, and by asking county societies to hold special meetings on cancer control.

We hope this campaign will be continued, and not be confined to the physician, but extended to the dentist. We find that many dentists see serious lesions in the mouths of patients which they imagine are innocent sores. They touch them up with iodine or nitrate of silver and tell the patient to use Lactoris or some other mouth wash and assure them that the sore will be well in a few days. This treatment only stimulates the growth and by the time the patient is referred to someone who recognizes the real danger it is too late, and the patient fills an untimely grave.

Another point Dr. Johnson mentioned is the combination of syphilis and cancer of the mouth. My experience with this lesion has been very distressing because, as he said, many of these patients give a positive Wassermann reaction, and are put on mixed treatment which apparently stimulates the cancer. Lesions at the junction of the anterior pillar of the tonsil and tongue are difficult to diagnose because we do not suspect them, as the symptoms are slight in the early stages and they are difficult to see, consequently we dismiss the patient with a mouth wash or gargle to find later when he returns, or consults another physician, that we have overlooked a cancer. I would suggest that every patient complaining of a soreness in this location have a careful digital examination of the throat, and when even a slight hardness is detected, the lesion be carefully watched.

The other point mentioned as a prophylactic measure should be carefully considered and patients warned against the excessive use of tobacco and to keep the mouth in good condition. Ninety-eight per cent of all cancers of the buccal cavity occur in people who are careless about keeping the mouth clean, use

of too much tobacco, neglect, irregular or broken teeth or ill fitting dental plates.

Dr. George L. Echols, Milledgeville: About four years ago I was solicited by a patient, whose age was about sixty, who had a small growth on the side of his tongue, about one-half as large as a common pea. He was advised to consult someone proficient in the treatment of cancer. This advice was acted on immediately. In a few days I received a report from the surgeon who did the operation saying that the pathological examination indicated that this innocent looking growth was a basal cell carcinoma. I have kept in close touch and there has been no recurrence of the malignancy. This case is cited to emphasize the necessity of sending all suspicious looking growths immediately to some doctor who specializes in this line of work, and to discourage the tendency to watch the growth, thus letting it reach a stage in which nothing can be done.

Dr. F. M. Johnson, Atlanta (closing): I agree with Dr. Campbell that a primary growth occurring in the tongue close to the tonsillar pillar is seldom diagnosed early. It creeps along the tonsillar pillar and the dorsum of the tongue becomes a hard mass that makes the disease almost incurable from the beginning. Cancer of the base of the tongue, as far as I know, has not been cured by any measure, surgery or radiation. Of course, the only hope lies in seeing these cases earlier.

Dr. Echols' reference to basal-cell carcinoma of the tongue is interesting. They do occur. I remember seeing one case, and the prognosis is usually good. As a rule these growths are squamous-cell and difficult to cure.

The dental profession has the opportunity of meeting these cases in their incipency, but seldom are they recognized. Much time is wasted by the use of local medication, and when the patient is sent to the surgeon very little can be accomplished.

Congenital Syphilis. V. M. Long. The Urologic and Cutaneous Review, October, 1926, Vol. XXX, No. 10.

Syphilis is not inherited and we should designate the condition as congenital syphilis. The old theories of syphilis are no longer held valid. Congenital syphilis is an infectious disease and is caused by the child coming in contact with the treponema pallida, by mediate or immediate contact. The weight of evidence is that a mother with active syphilis does not give birth to a healthy child. Children born of syphilitic parents should receive the benefit of the doubt and receive anti-syphilitic treatment.

THE PAINFUL HEEL*

THEODORE TOEPEL, M.D.
Atlanta

With additional experience and a number of interesting cases to report I am again presenting the subject of the painful heel, stressing the different causes which produce this particular condition together with the newer treatment now used.

The heel which bears the greatest portion of the weight of the body in the standing position and which receives the heaviest jolting during walking is, on account of its constant use, a much abused part of our anatomy.

The heel bone (calcaneum) is of necessity the largest and strongest of the tarsal bones. Of particular interest to us are the internal and external tubercles in consideration of important points of causes of pain on account of spurs (exostosis) finding their origin at these two places. The development of these spurs depends to some extent upon the patient's peculiar manner of standing and walking, either inverted with broken arch or everted.

Pain at the bottom of the heel and sensitiveness to pressure on standing may be one of the symptoms of achillobursitis, arising from a strain or nutritive disturbances which disappear when this condition is corrected with the foot at rest.

The cause of pain may also be an inflamed bursa, lying between the periosteum and the fatty tissue of the heel. Painful heels are not uncommon complication of gonorrhea and in cases of long standing the local inflammation apparently beginning in the musculo-periosteal attachment of the flexor brevis digitorum, on the inner tubercle may result in ossification (exostosis). In many cases the cause of the discomfort is revealed by the X-rays. In many cases exostosis arise from overgrowth of sub-periosteal bone and must be attributed to an irritation, affecting the periosteum. Trauma is often the exciting cause.

An origin from a misplaced island of cartilage is possible and may be referred to

trauma, rickets or pre-existing outgrowth of normal cartilage (ecchondrosis).

The subject of syphilis in connection with exostosis on the calcaneum is worthy of consideration. In some of my cases the family history was very suggestive of syphilis. The Wasserman test was negative. The result of specific treatment was so uniformly conclusive that I feel warranted in assuming that in these cases at least, congenital syphilis played a part in the etiology.

Treatment: This must be directed to the condition of which the pain is a symptom, and as has been stated, it is most often one of the symptoms of the weak or broken-down arch. If the sensitive point is localized by digital examination or with the aid of the X-rays, and if the pain is increased by jarring, a thick rubber heel, combined with an insole of cork or hard rubber, so cut as to remove the direct pressure on the sensitive point, will often relieve the symptoms. Operative removal of the exostosis is indicated if the prophylactic measures have failed. Effective treatment of gonorrhea, syphilis or other infection must be given first consideration. Sensitiveness due to direct contusion, or bruising of the tissues caused by overuse, must be treated by rest and by change of occupation.

In conclusion I will cite three cases which illustrate different conditions that cause the painful heel and the different methods of relief applied.

Case I: A young man, age twenty, of robust physique, working in a country store contracted gonorrhea and syphilis. He was successfully treated by his family physician, but after the apparent cessation of all symptoms of the original troubles pain in both heels developed, which was attributed to his occupation and increased weight. After six months of futile attempts of prophylactic measures, including liniments and salves he was brought to me for an examination. This included the urine, prostatic secretion, blood and X-rays. Blood showed # and the X-ray revealed two large calcaneal spurs, one under each bone. Vigorous anti-syphilitic treatment was begun and rest in bed ordered. At the end of six weeks, the patient's acute condition had subsided sufficiently for him to un-

*Read before the Medical Association of Georgia, Albany, Ga., May 12, 1926.

dergo an operation for the removal of both spurs. He stayed off his feet for three months after the operation by using crutches. The heels were protected by heavy rubber heels on the shoes and cork inlays with recesses. There was no recurrence of growth on the heel bones but a subsequent X-ray of the spine three years after the operation showed exostosis on the lumbar vertebrae.



CUT I
Exostosis (Spur) on calcaneum

Case II: A middle aged lady, endowed with good health, personal and family history negative, weighing one hundred and eighty pounds and doing general housework. All examinations were negative except that both feet were flat and arthritic and the X-ray showed exostosis projecting from the posterior and internal aspects of the left calcaneum. Two



Cut II
After removal of exostosis (Spur)

years previous to her coming to me her teeth had been removed for pyorrhea and pus cavities. An extensive removal of all projecting

bone was done as the picture will show. She stayed off her feet for three months after the operation. The same subsequent protection was resorted to as in the first case. After a lapse of two years she is well and walks with no discomfort.

Case III: A man, age thirty-two, occupation clerk, contracted gonorrhea, after three months of apparent successful treatment of this condition he complained to his physician of pain in the right heel. The X-ray showed an exostosis on the internal tubercle of the calcaneum. His physician reported to me that the prostatic secretions showed the presence of gonococci. With the resumed treatment of the gonorrheal condition and cork inlay with recess for the spur and a rubber heel with daily hyperaemic treatment the patient's pains had completely disappeared in the course of a month.

DISCUSSION ON PAPER OF DR. TOEPEL

Dr. Henry M. Michel, Augusta: Ever since the mother of Achilles dipped him into the Styx, and neglected to submerge the heel, the question of the heel has been neglected by everyone except Dr. Toepel, who has made a study of it. It is a small malady but one which gives a great deal of pain, and it is very important to the patient himself.

The question of painful heel, to my mind, is very largely a question of bursitis. Just above the insertion of the tendo-Achilles on the os calcis there is normally a bursa, and because of strains or spraining, a painful heel often develops. College boys frequently have it, and we are usually able to relieve the condition by rest.

As Dr. Toepel has pointed out, there occasionally are spurs on the inferior surface of the os calcis, which may become the source of inflammation and which have to be removed, but I wish to call to your attention that the skiagraph frequently shows a spur on the inferior surface of the os calcis that gives no symptoms. In the cases with acute pain, "like a needle sticking," as the patient describes it, we sometimes find a spur that is usually small as pictured by the skiagraph, so small as to be almost negligible, and yet in doing an operation we find that the base of the spur is considerably larger than the skiagraph indicates, and then comes down to a diminishing point. As Dr. Toepel said, these spurs may be the product of gonorrhea, although I think one would hesitate in many instances to suggest that this is the cause. It may be

(Continued on page 465)

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Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Reprints should be ordered within 30 days after the appearance of an article, since all type will be destroyed at the end of that time.

Editorial Department

THE SEASON'S GREETINGS

To each and every member of the Association we extend sincere greetings and best wishes for a Merry Christmas and a Happy New Year. May God's choicest blessings be showered upon you and yours during this Yuletide Season.

THE SOUTHERN MEDICAL ASSOCIATION

The Atlanta Meeting of The Southern Medical Association was a distinct success. Notwithstanding the agitation over the cotton situation there were 1,884 physicians who registered and a grand total registration of 2,669. Of these there were 708 members of the Medical Association of Georgia which, of course, gave us by far the largest registration of any state. Tennessee came second with 187; Alabama third with 160; and North Carolina fourth with 108.

The plan initiated at this meeting of having all the members together at clinics on Monday and Tuesday proved a most valuable departure and elicited many favorable comments.

The new officers elected were: Dr. J. Shelton Horsley, Richmond, President; Dr. Frank K. Boland, Atlanta, First Vice-President; Dr. A. A. Walker, Birmingham, Second Vice-President, and Mr. C. P. Lorz, Birmingham, Secretary-Manager, for a term of five years. Memphis was chosen as the meeting place for 1927. Let's make our plans now to carry to Memphis the largest delegation that has ever attended a medical meeting outside the state.

EPISCLERITIS

Episcleritis is recognized as a local manifestation of some systemic disorder. Rheumatism, gout, exposure to cold, menstrual derangements, tuberculosis and syphilis have been named as etiological factors. It may last from one to ten months or longer, and frequently recurs unless the underlying cause is removed. It is to be differentiated from conjunctivitis of local origin.

In the treatment, simple hygienic measures are indicated; and an effort should be made to determine the nature of the exciting factor. Not infrequently the lesion disappears following saline catharsis.

Foci of pyogenic infection in the tonsils, teeth, gall bladder, and appendix have been held responsible in some instances.

DEATH RATE FROM TUBERCULOSIS

The United States Public Health Service, in the Public Health Reports of October 15th, notes the decline in the number of deaths from all form of tuberculosis in the United States, England, and Wales.

The percentage of the decline from 1900 to 1924 in the Registration States ranged from seventy-three per cent for females under one year of age to thirty-seven per cent for females aged fifteen to nineteen years. The death rate in the United States for this period was lower than that in the other countries.

The accompanying tables appearing in the report furnish some interesting data:

Death rate for tuberculosis (all forms) per 100,000 population in the
registration States of 1900

Age period	1900		1910		1920		1924	
	Male	Female	Male	Female	Male	Female	Male	Female
All ages—								
Adjusted rate	194.4	182.8	173.5	141.2	114.5	101.7	89.7	77.2
Crude rate	201.9	188.5	184.0	146.2	121.8	103.7	95.4	78.0
Under 1 year.....	349.5	294.8	250.9	249.3	152.0	127.8	94.4	78.7
1 to 4 years.....	109.0	98.0	109.6	95.5	66.7	56.2	42.6	40.2
5 to 9 years.....	31.1	33.5	29.2	33.4	22.4	21.5	14.8	15.0
10 to 14 years.....	27.4	55.0	25.3	46.3	18.3	33.5	14.9	21.7
15 to 19 years.....	124.1	177.7	111.1	133.0	79.0	131.6	63.4	111.6
20 to 24 years.....	249.7	265.8	190.9	204.0	137.9	179.4	123.0	145.7
25 to 29 years.....	286.6	312.4	224.8	219.6	151.2	164.5	118.1	124.0
30 to 34 years.....	298.3	282.0	263.0	298.9	163.3	138.0	121.5	104.7
35 to 44 years.....	279.8	230.3	284.0	182.5	171.4	120.5	133.5	82.5
45 to 54 years.....	257.0	175.0	263.0	137.8	179.3	89.8	137.9	68.0
55 to 64 years.....	269.1	180.2	251.8	138.2	170.2	91.5	145.9	69.6
65 to 74 years.....	284.1	232.8	227.0	166.2	163.4	103.4	135.7	88.5
75 years and over...	276.0	267.6	183.0	168.1	122.7	103.2	90.8	78.2

Comparison of tuberculosis death rates for the United States and England and Wales
for 1924

Age period	Death rate for tuberculosis (all forms) per 100,000 estimated population in 1924			
	The United States: Registration States of 1920		England and Wales*	
	Male	Female	Male	Female
All ages—				
Adjusted rate	92.1	86.9	115.6	93.4
Crude rate	95.6	87.1	120.2	92.6
Under 1 year	86.8	74.7	114.2	94.3
1 to 4 years	36.9	32.6	103.6	88.3
5 to 9 years	12.7	13.9	36.5	36.7
10 to 14 years.....	14.6	23.8	32.0	53.5
15 to 19 years.....	63.2	112.7	82.3	127.3
20 to 24 years.....	127.0	167.8	151.2	152.6
25 to 29 years.....	131.4	142.5	150.4	136.3
30 to 34 years.....	129.8	118.4	148.6	117.8
35 to 44 years.....	134.1	97.0	170.4	99.3
45 to 54 years.....	133.6	82.2	172.4	76.0
55 to 64 years.....	144.9	84.2	143.6	65.7
65 to 74 years.....	165.1	115.7	102.2	54.4
75 years and over.....	136.2	120.9	33.5	34.4

*From Statistical Review for 1924, compiled by Registrar General of England and Wales.

PELVIC INFLAMMATORY DISEASE

C. W. Habbitt, International Journal of Medicine and Surgery, 39:4.

The author recommends expectant and conserva-

tive management in acute and the majority of recurrent attacks in the therapy of this condition. Absolute rest is imperative, local external applications, enemata and sedatives give relief. Foreign proteins and actinic rays are worthy of trial.

A PRIZE FOR MEDICAL RESEARCH

At the Annual Convention of the Medical Association of Georgia, in Albany, Ga., in May, 1926, Dr. Wm. R. Daney of Savannah, Ga., appeared before the House of Delegates, and announced that he had an offer to make to the Association in the nature of a suitable prize for the best piece of original work of merit accomplished during the year, by a member of this Association and presented at its annual meeting. He stated that the prize was to be given by a donor who was interested in the scientific progress of medicine and was offering the prize to stimulate research work in Georgia. Dr. Daney further stated that the prize would be given yearly by this generous benefactor as long as he lived, and that in his unselfishness and modesty, he had requested his name be not disclosed. It is to be known as "The Crawford W. Long Memorial Prize for Research Work."

It is desired that the profession at large in the state be cognizant of the fact that this prize will be presented yearly: that it is to be competed for at the next Annual Convention of the Medical Association of Georgia, in Athens, Ga., May, 1927, for the first time; that it is open to all members of the Medical Association of Georgia in good standing.

The committee of which Dr. Daney is chairman, has entire charge of the contest for this prize and will select capable judges to hear and examine the manuscripts before rendering a decision as to the winner.

The committee trusts that this generous donation will stimulate creditable original work and that the profession show its appreciation of the splendid spirit of the donor by rendering many worthy original papers.

Any further information desired by a contestant can be obtained from the chairman of the committee, Dr. Wm. R. Daney, 102 West Jones Street, Savannah, Ga.

AN APOLOGY

To err seems to be the unexpected lot of all mortals. To guard against mechanical mistakes in printing is the duty of editors; but after all the proofs are read and re-read, the final adjustment of type is entrusted to the employees of the printers. The editors regret exceedingly that the printers in making the corrections on the proof of an editorial appearing on page 401 of the October issue of the Journal made additional errors. The editors offer their apology and explanation to the readers for the mistakes of the printers.

HYGEIA AS A HOLIDAY GIFT

Recently a letter was sent to a selected list of laymen announcing that the American Medical Association is now publishing HYGEIA, and describing the features of the magazine. One of the letters came into the hands of a banker in Asheville, North Carolina. So impressed was he with the value of HYGEIA to everyone that the bank of its own accord and at its own expense took large display space in two Asheville newspapers to reproduce portions of the letter, publicly endorse HYGEIA and let citizens know that it could be obtained from the American Medical Association, 535 North Dearborn Street, Chicago.

This instance in itself might not have a great deal of significance, but it is typical of the way in which influential individuals, organizations and institutions have received and endorsed HYGEIA. Without any general advertising, and with conservative efforts to promote circulation, HYGEIA has become widely known among intelligent laymen and leaders in health work.

What does this mean to the medical profession? If anything, it signifies that the public is awakened and eager on matters of health, and that it looks to the medical profession for information. Thousands of physicians feel this responsibility and help to meet it by keeping a copy of HYGEIA in their reception room.

Another excellent plan which finds favor with many physicians at the holiday season is to give gift subscriptions for HYGEIA to patients or other friends. It is something that can be given with propriety, and with the feeling that it will contribute to the welfare and happiness of the recipient. Special rates are now in effect as follows:

One subscription	\$3.00
Two subscriptions or one subscription for two years	5.00
Three subscriptions or one subscription for three years	6.00
Each additional subscription	2.00

Start the New Year right by paying your 1927 dues to your County Secretary. Help make your County Society 100%.

THE PAINFUL HEEL

(Continued from page 461)

one of the manifestations of a rheumatoid arthritis on other parts of the body, as happened in the case Dr. Toepel cited in which the patient years afterward showed some spurs on the lumbar vertebrae. It may be connected with syphilis, but to my mind it usually is associated with trauma of the bursa of the tendo-Achilles. The condition is very much like "housemaid's knee" taking place in the heel. Weak or pronated feet often cause pain at the bottom of the heel and sensitiveness to pressure on standing. In these cases it is obviously necessary to correct the flat-foot before one can get relief of the painful heel.

Dr. William A. Newman, Macon: Dr. Toepel has given us a very good paper on the heel, but I cannot be as lenient with the public as Dr. Toepel and Dr. Michel. I am inclined to think that the majority of these spurs are due to gonorrhea, of course not all, but the majority.

Very little has been said about the syphilitic heel. The majority of pains in the heel occurring in syphilitic patients, not in the form of a spur but from the body of the calcaneum. There are a lot of patients who have the calcaneum, and if these are treated as syphilitic cases, and permitted to rest over several months better results will be obtained.

I think in the cases with a spur Dr. Toepel is very good to his patients when he keeps them on a crutch for three months. I believe that if we take a cut underneath the heel in those cases we can get the patients on the feet sooner.

Personally, I prefer to raise the arch of the foot, raising the entire inner border of the shoe, the sole and heel. I think this is better than to put in the arch support, to give a tilting of the entire foot.

Regarding toxic spurs, I think we very seldom operate on a toxic spur. I think any time this is done we are flirting with danger, and unless the cause of the toxic condition is removed nothing is accomplished. This is also true of the gonorrheal spurs. If the patient is not cured of his infection he is not helped by removing the spur. It will very likely return in the same place. I have seen two of these spurs removed, and the gonorrhea not treated, and the growth recurred as large exostoses involving one-half or more of the os calcis. That patient would have been better off had he never received treatment for his spur. He would have been better off if he had just taken some argyrol, and gone out into

the country and treated his gonorrhea. When I saw him he was on crutches and I refused to do anything for him unless he would come in and have treatment for his prostatitis and gonorrhea. He had both of these and needed treatment.

These patients I think would be much better off if they were treated by the urologists and internists. When they have gonorrhea they should have a urologist treat them, and if they are toxic they should have the internist treat them, for the orthopedist does not know what should be done for them.

Dr. Theodore Toepel, Atlanta (closing): I wish to thank the gentlemen for their kind discussion, but in my paper I said the treatment of syphilis, gonorrhea, and other infections must be given the first consideration.

In regard to the cork inlay, I think everyone who has used these knows that they have a resiliency which is most pleasant to the foot, and with the addition of a rubber heel on the outside there is a double protection which certainly makes the patient very comfortable. If the patient has an invasion naturally we wish to relieve the flat-foot, and this can be done by raising the inner border with a thick inlay, and the outer border with a very thin one, and use the rubber heel in the same manner. That throws the entire foot where it should be, and removes the pressure from the heel.

The toxic condition must always be treated first. If we do not remove the cause we have no right to call ourselves orthopedic surgeons. 525 Candler Building.

COMMUNICATIONS

To the Editor:

You will find further over in this issue a cordial invitation to you to attend a meeting of one of the few societies which is *really* profitable both to men in general work and those engaged in special lines. It has no sections and every address is pointed at the weak point in the whole scheme of the practice of medicine. That is, as you have often thought, the border line where general medicine and the specialties meet.

The Tri-States Medical Association of Mississippi, Arkansas and Tennessee meets in Memphis February 1-2-3, 1927. For absolute *quality* the program to be presented has never had a superior at any medical gathering in the South. That is a calm statement of fact—not boasting. Several have had more *bulk* but few have ever approached it in *worth*. It means an intensive, varied post-graduate course you can't *afford* to miss!

Yours sincerely,

A. F. COOPER, M. D., Secretary.

Bank of Commerce Bldg., Memphis, Tenn.

BOOKS RECEIVED

The Modern Treatment of Hemorrhoids by Joseph Franklin Montague, M.D., of the Rectal Clinic, University and Bellevue Hospital Medical College, New York Academy of Medicine, and New York Pathological Society. Contains 296 pages, 116 illustrations. Publishers: J. P. Lippincott Company, Philadelphia and London.

Practical Dietetics for Adults and Children in Health and Disease by Sanford Blum, M.D., Head of Department of Pediatrics, and Directory of the Research Laboratory, San Francisco Polyclinic and Post Graduate School. Second Revised Edition, contains 362 pages. Publishers: F. A. Davis Company, 1914-1916 Cherry Street, Philadelphia.

The Treatment of Fractures with Notes upon a Few Common Dislocations by Charles Locke Scudder, M.D., consulting surgeon to the Massachusetts General Hospital; formerly Assistant Professor of Surgery at the Harvard Medical School; member of the American Society of Clinical Surgery. Tenth Edition, Revised, contains 1240 pages, 2027 illustrations. Publishers: W. B. Saunders Company, West Washington Square, Philadelphia.

Clinical Pediatrics by John Lovett Morse, M.D., Professor of Pediatrics, Emeritus, Harvard Medical School. Contains 848 pages, illustrated. Publishers: W. B. Saunders Company, West Washington Square, Philadelphia.

BOOK REVIEWS

Nursery Guide for Mothers and Children's Nurses, by Louis W. Sauer, Ph. D., M. D., Senior Attending Pediatrician, Evanston Hospital; formerly Attending Physician Chicago Infant Welfare, and Assistant Attending Physician Children's Memorial Hospital, Chicago. Second Edition. The C. V. Mosby Company, St. Louis. Price \$2.00.

This little volume of 206 pages is an excellent household book for the mother, and is very valuable to the child's nurse also. It is clear and concise, and is fairly conservative. Dr. Sauer, in attempting to make the second edition even more practical than the first, has added many new illustrations and has broadened it to include advice and diets pertaining to the pre-school child as well as the infant.

Every physician should have this little book. "Although epoch-making discoveries have been made in the science of infant feeding during the past two decades a high infant mortality rate continues." Consequently, the physician in whom has been entrusted the care of an infant has unparalleled responsibility, and should always be conservative in making critical decisions.

RAIFORD T. WARNOCK, M. D.

Diseases of the New Born, a monographic handbook by John A. Foote, M. D., Professor of Diseases of Children, Georgetown University Medical

School. J. B. Lippincott Company, Philadelphia. Price \$5.00.

"I have gathered a bouquet of other people's flowers and only the thread that holds them together is my own." The author uses this quotation in the preface. Although this volume does consist of collected papers by several writers, most of them were written by the author himself.

Only the diagnosis and treatment of the diseases, malformations, accident of the new-born infant, etc., are considered here. But adequate bibliographical notes are provided for those that wish to do further reading.

This little book of 231 pages is well illustrated, and should be in the hands of every physician that deals with the new-born infant. However, the physician, while reading this book, must be very careful not to be led away from the firmly established and conservative ideas, and procedures.

RAIFORD T. WARNOCK, M. D.

MARRIAGES

Dr. Filip C. Forsbeck, Boston, Mass., and Miss Frances Anderson, Atlanta, were married at the Ponce de Leon Avenue Baptist Church October 23, 1926. Dr. F. C. McConnell, assisted by Dr. L. R. Christie, officiated.

OBITUARY

Dr. William W. Bruce, Thomasville, died at his home October 15, 1926, after an illness of long duration. He was born in 1855 and first began the study of medicine in Louisville, Ky., and later graduated in New York. He practiced in Thomasville until compelled by ill health to give up his profession. He is survived by his widow and one daughter, Miss Helen Bruce. Funeral was conducted by Rev. W. M. Harris of the First Baptist Church.

Dr. J. P. Ballenger, Armuchee, died at his home October 31, 1926, after an illness of short duration. He was born in 1856 and graduated at the Southern Medical College, Atlanta, in 1885, and completed a post-graduate course at the New York Polyclinic Medical School and Hospital of New York City in 1890. Dr. Ballenger practiced medicine in his home community for more than forty years and was one of the best known and most successful physicians of that section. For many years and until the time of his death, he was an active member of the Floyd County Medical Society, the Medical Association of Georgia and the American Medical Association and for more than thirty years a member of the Armuchee Baptist church. He is survived by one son, Dr. W. D. Ballenger, LaFayette; two daughters, Mrs. P. W. Holtzendorff of Claremore, Okla., and Miss Janie Ballenger of Armuchee. Funeral services were held at the Armuchee Baptist Church, conducted by Rev. R. L. Byrd, LaFayette, and interment in the Armuchee Cemetery.

Dr. John L. Weaver, Baxley, died suddenly at his home October 17, 1926. He was born March 28, 1852. He graduated from the Atlanta Medical College, Atlanta, in 1872, and practiced medicine for fifty-four years in Baxley. He married Miss Lula Roberson in 1879. Dr. Weaver was at one time president of the Citizens Banking Company and worshipful master of the Holmesville Masonic Lodge, and a member of the Missionary Baptist church. He is survived by his widow and one sister, Mrs. T. J. Harkrell, Villa Rica. Funeral services were conducted by Rev. Z. E. Barron and interment in Ten Mile Creek Church Cemetery.

Dr. H. C. Walker, Eatonton, died October 21, 1926, in Augusta from injuries sustained by being thrown from an automobile driven by Dr. H. C. Wasden, an interne at the University Hospital. Dr. Wasden swerved his machine to miss a car being backed into the street by an unknown driver and in doing so struck a car parked in the middle of the street and threw Dr. Walker from his car, and falling on his head produced injuries which resulted in his death the following morning. Funeral services were held in Eatonton and interment in the city cemetery.

Dr. William J. Hood, Commerce, died at his home near Cabin Creek Church, four miles south of Commerce. He was born in 1889. Dr. Hood was at one time associated with Dr. S. J. Smith and Dr. John A. Tuck. During the past twenty years he has resided at the old home of his father and practiced his profession. He was a quiet, peaceable citizen, a generous neighbor and friend and at the time of his death was a member of the baptist church of Nicholson, and the masonic fraternity. He is survived by his widow, aged mother, three brothers: Messrs. J. M., R. C. and S. T. Hood, and one sister, Mrs. Lovie Holland. Funeral services were conducted by Rev. P. B. Cash, assisted by Rev. A. J. Johnson, from the local baptist church and interment in Woodbine Cemetery at Jefferson.

Dr. Alexander H. Culpepper, Homerville, died at his home October 12, 1926. He was born in Warren County April 1, 1852, and received his literary education at Warrenton Academy. He began the practice of medicine in Atlanta in 1879 where he resided for nearly twenty years and in 1898 moved to Homerville. Dr. Culpepper was elected mayor of Homerville 1904, 1923, 1924, and again elected mayor in January, 1926. He represented Clinch County in the Legislature in 1913-14 and in 1917-18. He was local surgeon for the Atlantic Coast Line Railway and county physician since 1909. Dr. Culpepper was a member of the masonic lodge and Homerville baptist church. He is survived by his widow, six sons, and two daughters. Funeral services were conducted from the Homerville baptist church by Rev. R. W. Bugg, Gainesville, Fla.

Dr. Robert Grigg Reese, Augusta and New York City, died at his home at 160 East 63d Street, New York City, October 18, 1926. He was born in 1866. He owned considerable property and a winter home in Augusta and was one of America's most noted surgeons. He was professor of clinical surgery at Cornell University Medical College, New York. Dr. Reese married Miss Louise D'aigle of Augusta. Funeral services were conducted by Rev. William J. Johnson, Aiken, South Carolina, and interment in the city cemetery of Augusta.

Dr. Madison Finley Pennington, Columbus, died at his home 2709 Beacon Avenue, October 24, 1926. He was born in Madison, Morgan County, Georgia, in 1884. He was a graduate of Emory University School of Medicine and at one time on the staff of surgeons for the Georgia Railroad. Later he moved to Mountain Hill in Harris County where he practiced medicine for three years and moved to Columbus in 1913. In 1918 he enlisted in the medical corps of the United States Army and after serving for nearly two years resumed his practice in Columbus. He was a member of the Masonic Lodge, Knights of Pythias, B. P. O. E., Muscogee County Medical Society and the Medical Association of Georgia, member and steward in the Rose Hill methodist church. He is survived by his widow, his mother, Mrs. Addie M. Jenkins; one brother, Rev. Edgar Pennington, Jacksonville, Fla.; two sisters, Miss Dell Pennington and Miss Helen Jenkins of Jacksonville, Fla. Funeral services were conducted by Rev. M. M. Marshall from the Rose Hill methodist Church.

NEWS ITEMS

Dr. Cleveland Thompson, Millen, was made a fellow of the American College of Surgeons at a meeting held in Montreal, Canada, and afterwards spent some time studying in surgery clinics of New York City.

Dr. H. M. Edge, formerly of Cairo, is located in Fort Wayne, Ind., practicing medicine. Dr. Edge will be remembered as an active member of Grady County Medical Society and the Association. He was a prominent and successful physician in his home community.

Dr. C. T. Nolan, Marietta, after serving for sixteen years as secretary of the State Board of Medical Examiners, retired October 13 and was presented by the members of the board with a silver loving cup as a token of its appreciation for his faithful services. New officers of the state board are as follows: Dr. Clarence M. Paine, Atlanta, President; Dr. A. E. White, Flowilla, Vice-President; Dr. J. W. Palmer, Ailey, Secretary; Dr. Luke Robinson, Covington, was ap-

pointed by Governor Walker a member of the board.

Georgia State Association of Registered Nurses held its twentieth annual meeting at the De Soto Hotel, Savannah, October 21, 22, 23.

Twenty Georgia hospitals were awarded approval by the American College of Surgeons in its standardization conference held in Montreal, Canada, October 25.

Dr. Wm. H. Garrison, Clarkesville, has been elected by the council as a member of the city Board of Health.

Dr. T. Lowry, Cartersville, gave a free clinic at his hospital each Tuesday during the fall to school children and those of pre-school age when given permits by Dr. Monroe, Health Commissioner of Bartow County. The children were given toxin-antitoxin and proper treatment for the cure and prevention of physical defects.

Ten physicians have been added to the faculty of Emory University School of Medicine; M. T. Stringer, instructor in pathology; E. D. Shanks, bacteriology; W. A. Smith, neurology; R. S. Leadingham, medicine; R. C. Pendergrass, roentgenology; G. A. Williams, assistant in surgery; I. A. Ferguson, assistant in surgery; E. S. Colvin, gynecology and obstetrics; Keith C. Rice, assistant in surgery; L. W. Grove, associate in surgery.

The American Diabetic Association held its ninth annual meeting at the Ambassador Hotel, Atlantic City, October 11, 12, 13. Dr. J. R. MacLeod of the University of Toronto, co-discoverer of insulin treatment for diabetes, delivered an address on the advancement in the study of physiology.

The people of Savannah have been faithful and energetic in raising funds to build the Charity Hospital for the colored population.

The Third District Medical Association held its thirty-ninth semi-annual session at Dawson as the guest of Terrell County Medical Society, November 10. The following papers were on the scientific program: The Value of the Medical Society by J. C. Patterson, Cuthbert; The Modern Liver by Stewart R. Roberts, Atlanta; Treatment of Syphilis by the General Practitioner by S. P. Kenyon, Dawson; Our New Pharmacopeia by M. A. Clark, Macon; Ions and Ionic Medication by A. L. Crittenden, Shellman; The Masquerader by J. H. Baxter, Ashburn; State Health Problems by T. F. Abererombie, Commissioner of Health and Secretary, Georgia State Board of Health, Atlanta; Needed Medical Legislation by J. W. Palmer, Ailey; Establishing the Ellis Health Law by M. A. Fort, Health Officer for Decatur County, Bainbridge; Address by V. O. Harvard, President, Medical Association of Georgia, Arabi.

Dr. Samuel Kahn, formerly with the Kings Park State Hospital for the insane of New York, announces the opening of offices at 1012-13 Atlanta National Bank Bldg., Atlanta, practice limited to Neuro-Psychiatry, associated with Dr. N. M. Owensby.

Dr. T. G. Ritch, Jesup, spent several weeks recently in Chicago taking a post-graduate course in surgical technique and spent one week at the Mayo Brothers Hospital, Rochester, Minn.

The Woman's Auxiliary to the Fulton County Medical Society gave a bridge party at the Academy of Medicine October 20 for the benefit of the entertainment committee of the Southern Medical Association. About four hundred ladies registered.

Dr. and Mrs. Marion T. Benson entertained the officers of the Woman's Auxiliary at their home on Springdale Road October 14.

Dr. Stewart D. Brown, Royston, a well known and successful physician and surgeon of northeast Georgia, is converting the Franklin Hotel into a modern hospital. New rooms are being added, the interior remodeled, new heating plant installed and every effort being made to make it one of the best equipped institutions in that section of the state.

Dr. J. H. Nicholson announces the removal of his offices from 1026 Candler Building to 78 East Ellis Street, Atlanta, practice limited to general surgery.

Miss Virginia Gibbs of Marietta, was elected president of the Georgia State Association of Graduate Nurses at a meeting held in Savannah October 23.

Dr. T. B. King, formerly of Sandersville, and a member of the staff of the Rawlings Sanitarium, has removed to Gainesville, Fla.

The physicians of Chatsworth gave a free clinic for children under seven years of age to administer toxin-antitoxin furnished by the State Board of Health.

Dr. J. H. Campbell visited friends and relatives at his home in Jefferson recently and returned to Washington, D. C., where he is taking a course in diagnosis and treatment of diseases of the eye, ear, nose and throat.

Mrs. Eva Tupman of Atlanta, was elected president of the State Association of Public Health Nursing.

Dr. C. S. Jernigan, Sparta, was elected president of the Tenth District Medical Society at a meeting held in Augusta, October 28. He has been a prominent member of the Association for years and an outstanding figure in the practice of his profession in his community. Scientific papers

read before the meeting were as follows: Acute Otitis Media by S. J. Lewis, Augusta; Traumatic Inguinal Hernia by Richard Binion, Milledgeville. Some Minor Joint Conditions Frequently Diagnosed as Rheumatism by John C. Wright, Augusta; Dried Powdered Brewers' Yeast as an Accessory Food in Certain Confusional States by H. D. Allen, Jr., Milledgeville; A Few Pediatric Vagaries by W. A. Mulherin, Augusta.

Dr. Sam P. Wise, Plains, was elected president; Dr. J. F. Lunsford, Preston, vice-president; Dr. Ford Ware, Americus, secretary; Dr. B. T. Wise, Plains, delegate, for Sumter County Medical Society for 1927 at a meeting held in Americus on November 4.

The physicians of Douglas county held a free clinic in Douglasville on November 5 and administered toxin-antitoxin to all children that visited the clinic whether they were registered or not.

King's Daughters hospital training school of Waycross held their graduating exercises on November 5. Dr. B. H. Minchew, Waycross, delivered the baccalaureate address.

Dr. N. J. Guthrie, Norcross, and Dr. Coleman administered toxin-antitoxin to two hundred children at a free clinic given in Norcross in October.

One of the nicest private dinners given during the sessions of the Southern Medical Association was that of Dr. L. C. Fischer at the Biltmore to the members of his class who graduated in 1899. Those present were Dr. James S. Alsobrook, Rossville, Ga., Dr. Wiley S. Ansley, Decatur, Ga., Dr. James R. Boring, Canton, Ga., Dr. T. G. Cunningham, Atlanta, Ga., Dr. Jesse C. Dover, Clayton, Ga., Dr. L. M. Ellis, Tignall, Ga., Dr. Walter B. Emery, Atlanta, Ga., Dr. Luther C. Fischer, Atlanta, Ga., Dr. W. H. Perkinson, Marietta, Ga., Dr. J. G. Smith, McDonough, Ga. Dr. Theodore Toepel, Atlanta, Ga., Dr. Alton E. Wheeler, Atlanta, Ga. Dr. J. G. Smith, McDonough, Ga., was chosen president and Dr. Theodore Toepel, Atlanta, Ga., secretary of the class for the year 1926-27. The next meeting will be held at the home of Dr. J. G. Smith, McDonough, Ga., in 1927.

Dr. J. Shelton Horsley, Richmond, Virginia, was elected president of the Southern Medical Association on November 17th at their meeting held in Atlanta; Dr. Frank K. Boland, Atlanta, first vice-president; Dr. A. A. Walker, Birmingham, second vice-president; Mr. C. P. Loran, Birmingham, was re-elected Secretary-Manager for a term of five years.

Steiner clinic of Grady Hospital was awarded first prize for the best scientific exhibit at the meeting of the Southern Medical Association.

The Southern Medical Association will hold its next annual meeting in Memphis, Tennessee.

Dr. J. R. Garner, Atlanta, chief surgeon for the Atlanta and West Point Railroad, was elected president of the Southern States Association of Railway Surgeons. Dr. J. W. Palmer, Ailey, was elected secretary-treasurer for the tenth time.

The Atlanta Neurological Society held its regular meeting at the Academy of Medicine on Friday afternoon, November 26.

H. M. Patterson & Son, Funeral Directors, Atlanta, gave six prizes for the rifle shoot arranged by a committee consisting of Dr. H. C. Crawford, chairman, Drs. T. C. Davison and J. W. Roberts, held at the Peachtree Gun Club on November 16th for the delegates to the Southern Medical Association, the Fulton County Medical Society and the Atlanta Journal gave three other prizes. Dr. I. J. Sellers, Birmingham, won the Journal cup and the first prize offered by H. M. Patterson & Son for Class A trophy by a score of 89x100; Dr. R. E. Hughes, North Holston, Virginia, was runner-up in this class with a score of 83 and won the silver loving cup given by Patterson & Son. Dr. J. B. Hughes, Hapeville, Georgia, was the winner in Class B with a score of 70 and was given a silver cup. Dr. W. E. Yankey, Atlanta, was runner-up. Dr. George B. Smith, Rome, Georgia, was winner in Class C, the runner-up was a tie between Dr. Hugh M. Lokey and Dr. W. A. Selman, both of Atlanta. This was perhaps the first rifle shoot held as an entertainment for the delegates to any meeting of the Southern Medical Association and was very successful. The prizes were formally presented to the winners at the Presidential Ball, Wednesday night, November 17.

Dr. Pierce G. Blanchard, Appling, Columbia County, held free clinics at Appling high school, Laeh high school and Winfield high school and administered toxin-antitoxin to two hundred and eight school children. He has also given typhoid vaccine to five hundred patients during the last fifteen years and has practically wiped out typhoid in his community.

The Third District Medical Association met in Dawson on November 10. Many prominent physicians and surgeons were present. Dr. J. C. Patterson, President, presided over the meeting.

Dr. Geo. W. Bordeau, formerly of Chester, moved to Waycross and opened offices in the building formerly occupied by Dr. B. H. Minchew.

Doctors E. F. Griffith and V. H. Taliaferro, Eatonton, gave a clinic for the Eatonton high school and it is estimated that they gave toxin-antitoxin to seven hundred children of school and pre-school age.

(Continued on page 483)

Directory of the Medical Association of Georgia for 1926

Corrected to December 15th, 1926. Please notify the Secretary-Treasurer promptly of any errors or omissions.

ALTAMAHA SOCIETY

Members

Comas, P. H., Baxley

BALDWIN COUNTY

Officers

President.....Scott, W. M.
Vice-President.....Saye, E. B.
Secy.-Treas.....Allen, H. D., Jr.
Delegate.....Echols, Geo. L.

Members

Allen, E. W., Milledgeville
Allen, H. D., Jr., Milledgeville
Allen, H. D., Sr., Milledgeville
Allen, W. H., Milledgeville
Binion, Richard, Milledgeville
Bostwick, W. A., Milledgeville
Bowen, U. S., Milledgeville
Bradford, R. W., Milledgeville
Cox, C. G., Milledgeville
Echols, Geo. L., Milledgeville
Garrard, J. L., Milledgeville
Hall, T. M., Milledgeville
Longino, L. P., Milledgeville
Pettit, J. K., Thiel, N. Y.
Rankin, D. T., Milledgeville
Saye, E. B., Milledgeville
Scott, W. M., Milledgeville
Swint, R. C., Milledgeville
Walker, N. P., Milledgeville
Yarbrough, Y. H., Milledgeville

BANKS COUNTY

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vannah
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vannah
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vannah
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vannah

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Kinnard, Geo. P., Newnan
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Peniston, Joe B., Newnan
Peniston, Paul, Newnan
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Ward, J. A., Cordele
Whelchel, A. J., Cordele
Williams, H. J., Cordele
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Bridges, R. L. Z., Brinson
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Chason, Thomas, Donalsonville
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Ehrlich, M. A., Bainbridge
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Fort, M. A., Bainbridge
Hendry, J. H., Bainbridge
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Wilkinson, W. L., Bainbridge
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Osborne, V. W., Stone Mountain
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Lee, J. L., Pinhurst
Mobley, H. A., Vienna
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Pate, R. H., Unadilla
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Lucas, I. M., 910 N. Madison St., Albany
McDowell, T. C., Acree
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Mattox, B. B., Elberton
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Johnson, B. F., Garfield
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 Rogers, R. L., Gainesville
 Rudolph, J. B., Gainesville
 Titshaw, H. S., Gainesville
 Wellborn, C. J., Gainesville
 Wheelchel, C. D., Gainesville
 Williams, Geo. C., Clermont

HANCOCK COUNTY**Member**

Jernigan, C. S., Sparta

HARALSON COUNTY**Member**

Malone, W. H., Tallapoosa

HART COUNTY**Officers**

President.....Clark, Geo. S.
 Vice-President.....Jenkins, J. I.
 Secy.-Treas.....Meredith, A. O.
 Delegate.....Tasley, B. C.

Members

Clark, G. S., Hartwell
 Gaines, T. R., care Eye, Ear, Nose
 and Throat Hospital, New Or-
 leans, La.
 Hailey, W. I., Hartwell
 Harper, G. T., Dewy Rose, Rt. 2

Jenkins, J. C., Hartwell
 Jenkins, J. I., Bowman
 Meredith, A. O., Hartwell
 McCurry, W. E., Hartwell
 Teasley, B. C., Hartwell

HENRY COUNTY**Officers**

President.....Crawford, R. L.
 Secy.-Treas.....Sloan, W. P.
 Delegate.....Tye, R. L.

Members

Colvin, E. G., Locust Grove
 Crawford, R. L., Locust Grove
 Ellis, H. C., McDonough
 Sloan, W. P., McDonough
 Smith, J. G., McDonough
 Tye, R. L., McDonough

HOUSTON COUNTY**Officer**

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 Secy.-Treas.....Orr, W. L.

Members

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 Evans, E. L., Perry
 Evans, H. E., Perry
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 Story, J. W., Kathleen

IRWIN COUNTY**Officers**

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 Vice-President.....Luke, J. C.
 Secy.-Treas.....Willis, G. W.
 Delegate.....Harper, A.

Members

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 Luke, J. C., Ocilla
 McElroy, S. L., Ocilla
 Willis, G. W., Ocilla

JACKSON COUNTY**Officers**

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 Vice-President.....Crow, H. E.
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 Delegate.....Freeman, Ralph

Members

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 Allen, M. B., Hoschton
 Bennett, J. C., Jefferson
 Campbell, J. H., Jefferson
 Crow, H. E., Talmo
 Freeman, Ralph, Hoschton
 Hardman, L. G., Commerce
 Hubbard, F. M., Commerce
 Kennedy, W. C., Talmo
 Lord, C. B., Jefferson
 McDonald, E. M., Jefferson
 Rogers, A. A., Commerce
 Shankle, O. E., Commerce
 Sharp, L. J., Commerce (Deceased)

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President.....Pittard, L. Y.
 Secy.-Treas.....Lancaster, E. M.

Members

Anderson, J. F., Hillsboro
 Belcher, F. S., Monticello
 Brown, J. A., Shady Dale
 Cary, R. F., Monticello
 Lancaster, E. M., Shady Dale
 Pittard, L. Y., Monticello

JENKINS COUNTY**Officers**

President..... Perkins, M. E.
 Vice-President..... Mulkey, Q. A.
 Secy.-Treas..... Thompson, C.
 Delegate..... Mulkey, Q. A.

Members

Jones, J. M., Thrift
 Lee, H. G., Millen
 Mulkey, Q. A., Millen
 Perkins, M. E., Millen
 Thompson, C., Millen

JOHNSON COUNTY**Officers**

President..... Harris, T. L.
 Secy.-Treas..... Brantley, J. G.

Members

Brantley, J. G., Wrightsville
 Bray, H. B., Wrightsville
 Brinson, R. E., Wrightsville
 Harris, T. L., Wrightsville

JONES COUNTY**Officers**

President..... Riley, J. H.
 Secy.-Treas..... Zachary, J. D.

Members

Kenney, C. B., Haddock
 Riley, J. H., Baconton
 Zachary, J. D., Gray

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 Vice-President..... Rogers, J. M.
 Secy.-Treas..... Anderson, Jno. M.
 Delegate..... Suggs, C. E.

Members

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 Barron, J. M. F., Milner, R. F. D.
 Corry, J. A., Barnesville
 Pritchett, D. W., Barnesville
 Rogers, J. M., Barnesville
 Suggs, C. E., Barnesville
 Willis, C. H., Barnesville

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 Vice-President..... Coleman, A. T.
 Secy.-Treas..... Cheek, O. H.
 Delegate..... New, J. E.

Members

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 Brigham, W. R., Dublin
 Carter, J. G., Scott
 Chappell, R. J., Dudley
 Cheek, O. H., Dublin
 Claxton, E. B., Dublin
 Coleman, A. T., Dublin
 Edmondson, J. W., Dublin
 Hodges, C. A., Dublin
 Kea, T. B., Adrian
 Montford, H. L., Dublin
 Moye, C. G., Brewton
 Murray, D. L., Dexter
 New, J. E., Dexter
 Thompson, W. C., Dublin
 Walker, Sidney, Dublin

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 Vice-President..... Smith, J. M.
 Secy.-Treas..... Thomas, J. A.
 Delegate..... Thomas, J. A.

Members

Bird, Frank, Valdosta
 Ellis, E. B., Valdosta
 Freeman, D. W., Valdosta
 Griffin, A., Valdosta
 Huey, H. G., Homerville
 Little, A. G., Valdosta
 Mixson, J. F., Valdosta
 Pennington, J. W., Howell
 Pennington, T. E., Naylor
 Prescott, J. P., Lake Park
 Quarterman, P. C., Valdosta
 Rentz, W. C., Valdosta
 Smith, J. M., Valdosta
 Smith, T. H., Valdosta
 Thomas, F. H., Valdosta
 Thomas, Jos. A., Valdosta

MACON-TAYLOR COUNTIES**Officers**

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 Vice-President..... Frederick, D. B.
 Secy.-Treas..... Mullino, F. M.
 Delegate..... Richardson, C. H.

Members

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 Bryan, S. H., Reynolds
 Derrick, H. C., Oglethorpe
 Frederick, D. B., Marshallville
 Greer, C. A., Oglethorpe
 Lightner, L. L., Ideal
 Mangham, J. E., Reynolds
 Montgomery, R. C., Butler
 Mullino, F. M., Montezuma
 McGill, R. E., Montezuma
 Nelson, G. W., Marshallville
 Richardson, C. H., Sr., Montezuma

MADISON COUNTY**Officers**

President..... Bauster, H. G.
 Secy.-Treas..... Gholston, W. D.
 Delegate..... Gholston, W. D.

Members

Banister, H. G., Ila
 Gholston, W. D., Danielsville
 Hampton, H. H., Colbert
 Loden, G. L., Colbert
 Moore, M. P., Carlton
 Westbrook, R. J., Ila
 Wheelchel, C. C., Comer
 Wheelchel, Fred C., Comer

MERIWEATHER COUNTY**Officers**

Secy.-Treas..... Gilbert, R. B.
 Delegate..... Gilbert, R. B.

Members

Allen, W. P., Woodbury
 Bennett, V. H., Gay
 Dixon, J. L., Woodbury
 Ellis, W. P., Gay
 Gilbert, R. B., Greenville
 Jackson, J. L., Manchester
 Jackson, T. W., Manchester
 Johnson, J. A., Manchester
 Johnson, J. C., Manchester
 Williams, V. G., Odessadale
 Witt, M. S., Manchester

MITCHELL COUNTY**Officers**

Secy.-Treas..... Luke, D. P.
 Delegate..... Cranford, O. G.

Members

Belcher, D. P., Pelham
 Brown, J. L., Camilla

Clements, J. R., Pelham
 Cranford, O. G., Sale City
 Lewis, F. L., Camilla
 Luke, D. P., Camilla
 McLain, J. W., Pelham
 Rainey, C. O., Camilla
 Reid, C. W., Pelham
 Riley, J. H., Baconton
 Roles, C. L., Camilla
 Stevens, A. T., Sale City
 Summerlin, J. A., Pelham
 Williams, B., Pelham

MONROE COUNTY**Officers**

President..... Smith, B. L.
 Vice-President..... Goolsby, R. C., Jr.
 Secy.-Treas..... Smith, W. J.
 Delegate..... Alexander, G. L.

Members

Alexander, G. H., Forsyth
 Alexander, G. L., Forsyth
 Elrod, J. O., Forsyth
 Goolsby, R. Cullen, Jr., Forsyth
 Goolsby, R. C., Sr., Forsyth
 Smith, B. L., Forsyth, Rt. No. 1
 Smith, W. J., Juliette

MONTGOMERY COUNTY**Officers**

President..... Moses, W. M.
 Vice-President..... Sharpe, H. C.
 Secy.-Treas..... Hunt, J. E.
 Delegate..... Palmer, J. W.

Members

Dees, J. H., Alston
 Hunt, J. E., Mt. Vernon
 Moses, W. M., Uvalda
 Palmer, J. W., Uvalda
 Sharpe, H. C., Uvalda

MORGAN COUNTY**Officers**

President..... Fambrough, W. M.
 Vice-President..... McGeary, W. C.
 Secy.-Treas..... Carter, D. M.

Members

Carter, D. M., Madison
 Fambrough, W. M., Bostwick
 McGeary, W. C., Madison
 Porter, J. L., Rutledge
 Prior, F. M., Apalachee
 Riden, C. F., Bostwick

MURRAY COUNTY**Officers**

President..... Bates, M. P.
 Vice-President..... Bradley, R. H.
 Secy.-Treas..... Dickie, E. H.
 Delegate..... Bradley, R. H.

Members

Bates, M. P., Ramhurst
 Bradford, J. E., Spring Place
 Bradley, R. H., Chatsworth
 Colvard, T. W., Crandall
 Dickie, E. H., Chatsworth
 Jones, F. M., Chatsworth (Hon.)
 Kemp, R. C., Conasauga, Tenn.

MUSCOGEE COUNTY**Officers**

President..... Blackmar, Francis B.
 Vice-President..... Dykes, A. N.
 Secy.-Treas..... Dillard, G. J.

Members

Anderson, J. M., Murrah Bldg.,
 Columbus

Baird, J. M., Swift Bldg., Columbus
 Baker, E. L., Masonic Temple,
 Columbus
 Blackmar, Francis B., Needham
 Bldg., Columbus
 Brannen, O. C., Murrah Bldg.,
 Columbus
 Brooks, R. L., Doctors Bldg.,
 Columbus
 Campbell, W. H., 1036 3rd Ave.,
 Columbus
 Carter, C. B., Murrah Bldg.,
 Columbus
 Cooke, W. L., Doctors Bldg.,
 Columbus
 Delamar, James, Masonic Temple,
 Columbus
 Dexter, C. A., Murrah Bldg.,
 Columbus
 Dillard, G. J., Columbus
 Dykes, A. N., Swift Bldg., Columbus
 Gillian, O. D., Doctors Bldg.,
 Columbus
 Jenkins, W. F., City Hospital,
 Columbus
 Johnson, C. D., Doctors Bldg.,
 Columbus
 Johnson, J. H., Murrah Bldg.,
 Columbus
 Jones, W. R., 3d Nat. Bk. Bldg.,
 Columbus
 Jordon, W. P., Doctors Bldg.,
 Columbus
 Mathews, Jno. H., Doctors Bldg.,
 Columbus, Ga.
 Moses, Alice, Columbus
 Murray, G. S., Murrah Bldg.,
 Columbus
 McDuffie, J. H., Jr., Masonic Tem-
 ple, Columbus
 McDuffie, J. H., Sr., Masonic Tem-
 ple, Columbus
 McMichael, V. H., Murrah Bldg.,
 Columbus
 Moncrief, J. T., Swift Bldg.,
 Columbus
 Norman, Frank P., Columbus
 Peacock, C. A., Murrah Bldg.,
 Columbus
 Pennington, J. H., Doctors Bldg.,
 Columbus
 Pennington, M. F., Doctors Bldg.,
 Columbus (Deceased)
 Tidwell, Jack T., City Hospital
 Columbus
 Tillery, Bert, Swift Bldg., Columbus
 Whitehead, W. F., Doctors Bldg.,
 Columbus
 Williams, R. L., Doctors Bldg.,
 Columbus
 Winn, J. H., Swift-Kyle Bldg.,
 Columbus
 Woodbridge, J. C., Murrah Bldg.,
 Columbus
 Youmans, J. R., 1140½ Broad St.,
 Columbus
 Young, S. E., Midland

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 Vice-President.....Gibson, W. A.
 Secy.-Treas.....Colvin, F. G.

Members

Boland, S. A., Thomson
 Colvin, F. G., Ray City
 Gibson, W. A., Thomson

NEWTON COUNTY**Officer**

Secy.-Treas.....Travis, W. D.

Members

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 Pharr, L. J., Newborn
 Randle, J. H., Covington, Rt. No. 8
 Sams, J. R., Covington, Rt. No. 8
 Travis, W. D., Covington
 Waites, S. L., Covington
 Wilson, Please, Newborn

OCMULGEE SOCIETY

(Bleckley, Dodge, Pulaski Counties)

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 Vice-President.....Whipple, R. L.
 Secy.-Treas.....Bush, A. R.
 Delegate.....Wall, J. Cox

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 Burns, A. B., Hawkinsville
 Bush, Albert R., Hawkinsville
 Coleman, W. A., Eastman
 Collum, O. F., Chauncey
 Massey, W. F., Chester
 Maloy, Jim, Rhine
 Parkerson, I. J., Eastman
 Pirkle, W. H., Cochran
 Smith, A. L., Cochran
 Smith, Ernest L., Eastman
 Smith, J. M., Cochran
 Wall, J. C., Eastman
 Whipple, R. L., Cochran
 Williams, W. C., Jr., Delray, Fla.
 Yawn, B. W., Eastman

PAULDING COUNTY**Member**

Simmons, J. I., Hiram

PEACH COUNTY**Member**

Hickson, M. L., Fort Valley

PIKE COUNTY**Officers**

Vice-President.....Head, D. L.
 Secy.-Treas.....Head, M. M.
 Delegate.....Head, M. M.

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 (Hon.)
 Grubbs, J. H., Molena
 Head, D. L., Zebulon
 Head, J. M., Zebulon (Hon.)
 Head, M. M., Zebulon
 Howard, I. B., Williamson
 Mallory, R. A., Concord

POLK COUNTY**Officers**

President.....Richardson, E. H.
 Vice-President.....McBryde, T. E.
 Secy.-Treas.....Cbaudron, P. O.
 Delegate.....Howell, J. L.

Members

Chaudron, P. O., Cedartown
 Cook, Hamlin C., Bremen
 Cooper, J. J., Cedartown
 England, W. G., Cedartown
 Howell, J. L., Aragon
 McBryde, T. E., Rockmart
 Peek, C. W., Cedartown
 Pennington, J. E., Esom Hill
 Richardson, E. H., Cedartown
 (Deceased)

Whitley, S. L., Cedartown
 Wood, C. V., Cedartown

RABUN COUNTY**Officers**

President.....Neville, L.
 Vice-President.....Dover, J. C.
 Secy.-Treas.....Green, J. A.

Members

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 Green, J. A., Clayton
 Neville, L., Dillard

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 Vice-President.....Ingram, H. R.
 Secy.-Treas.....Moore, G. Y.
 Delegate.....Martin, F. M.

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 Crittenden, A. L., Shellman
 Crook, W. W., Cuthbert
 Gary, Loren, Georgetown
 Harper, T. F., Coleman
 Ingram, H. R., Coleman
 Lunsford, G. G., Weston
 Martin, F. M., Shellman
 Moore, G. Y., Cuthbert
 McCurdy, E. C., Shellman
 Patterson, F. D., Cuthbert
 Patterson, J. C., Cuthbert
 Rogers, F. S., Coleman
 Rogers, W. T., Coleman (Hon.)
 Saurez, Annette McD., Cuthbert
 (Hon.)
 Shepard, J. L., Carnegie

RICHMOND COUNTY**Officers**

President.....Cranston, W. J.
 Secy.-Treas.....Agee, M. P.
 Delegate.....Chaney, R. H.
 Delegate.....Mulherin, Wm. A.

Members

Agee, M. P., Lamar Bldg., Augusta
 Akerman, J., University Hospital,
 Augusta
 Armstrong, R. M., care Eye, Ear,
 Nose and Throat Hospital, New
 Orleans, La.
 Baines, M. Carroll, U. S. Hospital
 No. 62, Augusta
 Baker, H. J., S. F. C. Bldg.,
 Augusta
 Battey, W. W., Jr., 428 Sixth St.,
 Augusta
 Beddingfield, W. R., S. F. C. Bldg.,
 Augusta
 Bernard, G. T., 203 13th St.,
 Augusta
 Blanchard, C. A., 926 Broad St.,
 Augusta
 Blanchard, P. G., Appling
 Bryans, C. I., Lamar Bldg., Augusta
 Burdshaw, J. F., Johnson Bldg.,
 Augusta
 Burpee, C. M., University Hospital,
 Augusta
 Butler, J. H., Lamar Bldg.,
 Augusta
 Bryson, R. I., S. F. C. Bldg.,
 Augusta
 Chaney, Ralph H., Medical College,
 Augusta
 Clayton, Malcolm, 811 Metcalf St.,
 Augusta

Coleman, T. D., Marion Bldg., Augusta
 Crane, C. W., Lamar Bldg., Augusta
 Cranston, W. J., Lamar Bldg., Augusta
 Davidson, A. A., 1116 Greene St., Augusta
 Eaton, Paul, Medical College, Augusta
 Eve, H. J., 619 Greene St., Augusta
 Goodrich, W. H., S. F. C. Bldg., Augusta
 Gray, J. D., 1345 Greene St., Augusta
 Harrison, W. H., 122 Jackson St., Augusta
 Harris, R. L., Linwood Hospital, Augusta
 Harvey, W. L., Bartow
 Holmes, L. P., University Hospital, Augusta
 Horne, G. T., Lamar Bldg., Augusta
 Hull, Asbury, Lamar Bldg., Augusta
 Hull, J. M., S. F. C. Bldg., Augusta
 Huson, Joseph, Lamar Bldg., Augusta
 Jameson, Walter Byron, Lamar Bldg., Augusta
 Jennings, W. D., Lamar Bldg., Augusta
 Kelly, J. O., Avera
 Kellogg, W. C., S. F. C. Bldg., Augusta
 Kelley, G. Lombard, Lamar Bldg., Augusta
 Kershaw, M. M., Lamar Bldg., Augusta
 Kershaw, Theo., Lamar Bldg., Augusta
 Ketchins, S. C., Louisville
 Kilpatrick, A. J., 704 Greene St., Augusta
 Lamar, R. V., Medical College, Augusta
 Lee, F. Lansing, Lamar Bldg., Augusta
 Lentz, C. S., University Hospital, Augusta
 Levy, M. S., Lamar Bldg., Augusta
 Lewis, J. R., Louisville
 Lewis, S. J., 1112 S. F. C., Bldg., Augusta
 Lichtenstein, Samuel, Linwood Hospital, Augusta
 Malone, H. H., 740 Greene St., Augusta
 May, E. R., Lincolnton
 Metts, J. C., University Hospital, Augusta
 Michel, H. M., S. F. C., Bldg., Augusta
 Milligan, K. W., 307 10th St., Augusta
 Montgomery, C. J., 918 Johns Road, Augusta
 Mountain, C. W., Walton Way, Augusta
 Mulherin, F. X., 1224 Greene St., Augusta
 Mulherin, W. A., S. F. C. Bldg., Augusta
 Murphey, E. E., 432 Telfair St., Augusta
 Oden, Jno. W., Gracewood

Oertel, T. E., 638 Greene St., Augusta
 Oliphant, Jones B., Mitchell
 Page, Hugh N., Medical College, Augusta
 Phinizy, Irvine, University Hospital, Augusta
 Pitcher, Geo. S., 418 Capitol Ave., S. E., Atlanta
 Price, W. T., Montgomery Bldg., Augusta
 Pund, Edgar, Medical College, Augusta
 Revell, S. T. R., Louisville
 Rhodes, R. L., Lamar Bldg., Augusta
 Rice, E. P., Leonard Bldg., Augusta
 Roberts, W. H., 204 13th St., Augusta
 Rogers, Frank M., U. S. Vet. Hosp., Augusta
 Robertson, J. R., S. F. C., Bldg., Augusta
 Salley, O. B., 1315 Wingfield St., Augusta
 Scharnitzky, E. O., Lamar Bldg., Augusta
 Shaw, H. W., Lamar Bldg., Augusta
 Sherman, John, University Hospital, Augusta
 Silver, D. M., Lamar Bldg., Augusta
 Sydenstricker, V. P., University Hospital, Augusta
 Tessier, L. P., Masonic Temple, Augusta
 Timmons, C. C., 401 Milledgeville Rd., Augusta
 Traylor, Geo. A., Lamar Bldg., Augusta
 Wade, A. C., Marion Bldg., Augusta
 Walton, Chas. R., U. S. Vet. Hosp., Augusta
 Ward, Chas. D., University Hosp., Augusta
 Weeks, J. L., Harlem
 Wilcox, E. A., 921 Greene St., Augusta
 Wright, J. C., S. F. C. Bldg., Augusta
 Wright, Lewis H., University Hosp., Augusta
 Wright, P. B., Lamar Bldg., Augusta

SCREVEN COUNTY

Officers

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 Vice-President.....Ezell, H. E.
 Secretary.....Cail, J. C.
 Treasurer.....Lanier, L. F.
 Delegate.....Lanier, L. F.

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 Doster, H. W., Rocky Ford
 Evans, W. W., Halcyondale
 Ezell, H. E., Oliver
 Joyner, A. S., Woodcliff
 Lanier, L. F., Rocky Ford
 Lewis, A. D., Sylvania
 Lovett, W. R., Sylvania
 Mims, S. W., Sylvania
 Reddick, A. B., Sylvania
 Rushing, W. E., Milhaven

SPALDING COUNTY

Officers

President.....Gable, N. W.
 Vice-President.....Miles, W. C.
 Secy.-Treas.....Hawkins, T. I.
 Delegate.....Gable, N. W.

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 Anthony, J. R., Griffin
 Austin, W. H., Griffin
 Beason, Lewis, Experiment
 Conn, Webb, Griffin
 Copeland, H. W., Griffin
 Drewry, T. E., Griffin
 Forrer, D. A., Griffin
 Frye, A. H., Griffin
 Gable, L. M., Griffin
 Gable, N. W., Brooks
 Griffith, C. F., Griffin
 Hawkins, T. I., Griffin
 Huckaby, A. H., Griffin
 Humphries, W. C., Griffin
 Hunt, K. S., Griffin
 Miles, W. C., Griffin
 Steele, W. H., Griffin
 Thomas, J. M., Griffin
 Tucker, C. L., Griffin

STEPHENS COUNTY

Officers

President.....Fresh, W. M.
 Vice-President.....Chaffin, E. F.
 Secy.-Treas.....Ayers, C. L.
 Delegate.....Ayers, C. L.

Members

Ayers, C. L., Toccoa
 Chaffin, E. F., Martin
 Craig, Alexander, Toccoa
 Davis, Jeff, Toccoa
 Fresh, W. M., Toccoa
 Isbell, J. E. D., Toccoa
 Littlejohn, W. S., Tugalo
 Parker, W. H., Arp
 Swain, W. H., Martin
 Terrell, J. H., Toccoa

STEWART-WEBSTER COUNTIES

Officers

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 Vice-President.....Lunsford, J. F.
 Secy.-Treas.....Walton Milton
 Delegate.....Kenyon, J. M.

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 Alston, N. C., Richland (Hon.)
 Collum, Ein, Ellaville
 Foster, J. H., Preston
 Grier, R. L., Lumpkin
 Kenyon, J. M., Richland
 Lovvorn, R. M., Richland
 Lunsford, G. G., Weston
 Lunsford, J. F., Preston
 Lynch, C. S., Lumpkin
 McCurdy, W. F., Richland (Hon.)
 Miller, T. S., Richland (Hon.)
 Pickett, C. E., Richland
 Sims, W. C., Richland
 Walton, Milton, Lumpkin
 Wimberly, J. S., Lumpkin

SUMTER COUNTY

Officers

Secy.-Treas.....Anderson, E. B.
 Delegate.....Wise, B. T.

Members

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 Bagley, Geo. W., Jr., DeSoto

Boggs, H. L., Cobb
 Bridges, B. L., Ellaville
 Chambliss, J. W., Americus
 Jordan, J. R., Ellaville
 Logan, J. C., Plains
 Lunsford, J. F., Preston
 Prather, W. S., Americus
 Primrose, A. C., Americus
 Simpson, H. T., Smithville
 Smith, H. A., Americus
 Stukes, J. T., Americus
 Thomasson, W. E., Andersonville
 Ware, Ford, Americus
 Wise, B. J., Plains
 Wise, B. T., Plains
 Wise, S. P., Plains
 Wood, Kenneth, Leslie

TALBOT COUNTY**Officers**

President.....Peeler, J. E.
 Vice-President.....Leonard, W. P.
 Secy.-Treas.....Carter, G. L.
 Delegate.....Carson, C. C.

Members

Carson, C. C., Talbotton
 Carter, G. L., Talbotton
 Leonard, W. P., Talbotton
 Peeler, J. E., Woodland

TALLAFERRO COUNTY**Officers**

President.....Nash, T. C.
 Secy.-Treas.....Rhodes, Jno. A.
 Delegate.....Ray, A. T.

Members

Nash, T. C., Philomate
 Ray, A. T., Sharon
 Rhodes, John A., Crawfordville

TATTNALL COUNTY**Officers**

President.....Harris, J. C.
 Vice-Pres.....Bowen, Jno. H.
 Secy.-Treas.....Collins, J. C.
 Delegate.....Hughes, J. M.

Members

Bowen, Jno. H., Cobbtown
 Collins, J. C., Collins
 Harris, J. C., Reidsville
 Hughes, J. M., Glennville
 Jones, R. D., Elza
 Kennedy, J. J., Collins (Hon.)
 Strickland, L. V., Cobbtown
 Tootle, G. W., Glennville
 Walling, C. B., Collins

TELEFAIR COUNTY**Officers**

President.....Mann, Frank
 Vice-President.....Powell, W. H.
 Secy.-Treas.....Maloy, C. J.
 Delegate.....Maloy, J. K.

Members

Born, W. H., McRae
 Connel, M. D., McRae
 Fussell, J. K., Rhine, R. F. D.
 Fussell, T. D., Rhine, R. F. D.
 Harrell, A. O., Milan
 Jones, A. J., Jacksonville, Ga.
 Kennon, B. M., McRae
 Maloy, C. J., Helena
 Maloy, D. W. F., Milan
 Maloy, H. S., Milan
 Maloy, J. K., Milan (Hon.)
 Mann, Frank, McRae
 Napier, LeRoy, Lumber City

Neal, J. W., Seotland
 Powell, W. H., Lumber City

TERRELL COUNTY**Officers**

President.....Arnold, J. T.
 Secy.-Treas.....Thomas, Logan

Members

Arnold, J. T., Parrott
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NEWS ITEMS

(Continued from page 469)

Dr. J. E. Lester, Kennesaw, reports that there are very little diphtheria in Cobb county and that toxin-antitoxin had been administered to four hundred children in the county health office and that over two thousand in Cobb county had received the treatment.

Dr. J. P. Kennedy, Atlanta, city health officer, stated that during the latter part of October and early in November the city health officials inoculated on an average one hundred children a day with toxin-antitoxin for the prevention of diphtheria.

Examinations for nurses were held in Atlanta, Augusta, Macon and Savannah on November 18 and 19. Those passing the examination are qualified to become registered nurses.

The Georgia Medical Society entertained for its members and their wives with a family house warming at their hall, 612 Drayton Street, Savannah, on Tuesday evening, October 26. Dr. Wm. R. Dancy, president of the society, delivered an address which was followed with music by an orchestra and the Woman's Auxiliary served refreshments. The auditorium hall has been enlarged to double its former capacity during the summer and the entire interior remodeled, new heating and lighting systems have been installed, new fountain and draperies; the splendid improvements make a very pleasing effect for the entire building.

The Walton County Hospital has moved into new quarters having leased the former residence

of Governor Walker which is a large brick structure with greater capacity and better adapted to the use of the hospital than the building formerly used.

Dr. E. O. Scharnitzky, Augusta, was elected third vice-president of the American Prison Physician's Association at the convention held in Pittsburgh, Pa., October 21st.

The Second District Medical Society will hold its next semi-annual meeting in Edison the second Friday in April, 1927. The physicians of Calhoun County are planning an excellent program and a royal entertainment for the visiting doctors.

Doctors J. B. H. Day, H. L. Upshaw and W. D. Spearman of Social Circle, gave toxin-antitoxin to about seventy-five school children at a free clinic held recently, sponsored by the Parent-Teacher Association.

Miss Margaret Giles, formerly with the U. S. Veterans Bureau Hospital, Alexandria, La., was recently appointed superintendent and Miss Mary Roberts, technician of the Sanchez Private Sanitarium, Barwick.

Dr. Murdock Ecken, 401-2-3-4 Grand Opera House, Atlanta, announces the limitation of his work to diseases of the ear, nose and throat, bronchoscopy and esophagoscopy.

Dr. L. G. Hardman, Commerce, Governor-elect, was the principal speaker at the dedication services held at the Georgia Baptist Hospital October 31, dedicating the \$350,000.00 surgical building which has just been completed; other speakers were Dr. J. D. Manget, president of the hospital staff, and Mrs. W. J. Neel, president of the Woman's Missionary Society of Georgia.

The city of Waycross and Ware County have planned to raise \$150,000.00 by 1931 to erect and equip a standard fireproof hospital which will measure up to every requirement of the American College of Surgeons. An agreement may be reached with the King's Daughters Hospital to use their building and equipment. The city and county have each agreed to appropriate fifteen thousand dollars annually for five years.

Mrs. P. H. Jeter, Atlanta, president of the Parent-Teacher Association of Georgia, urges all parents to have their children inoculated with toxin-antitoxin for the prevention and eradication of diphtheria.

Drs. B. H. Minchew and R. L. Johnson of Waycross, attended the meeting of the American College of Surgeons held in Montreal, Canada.

Medical Association of Georgia

Next Annual Meeting, Athens, Ga., May 10, 11, 12, 13, 1927

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FRATERNAL DELEGATES TO OTHER STATE MEETINGS

To visit Florida: C. H. Watt, Thomasville; R. F. Wheat, Bainbridge.

To visit North Carolina: J. H. Downey, Gainesville; C. L. Ayers, Toccoa.

To visit South Carolina: W. A. Mulherin, Augusta; H. M. Fullilove, Athens.

To visit Alabama: A. S. Bacon, Albany; F. M. Martin, Shellman.

To visit Tennessee: Trammell Starr, Dalton; C. J. Wellborn, Gainesville.

The Journal of The Medical Association of Georgia

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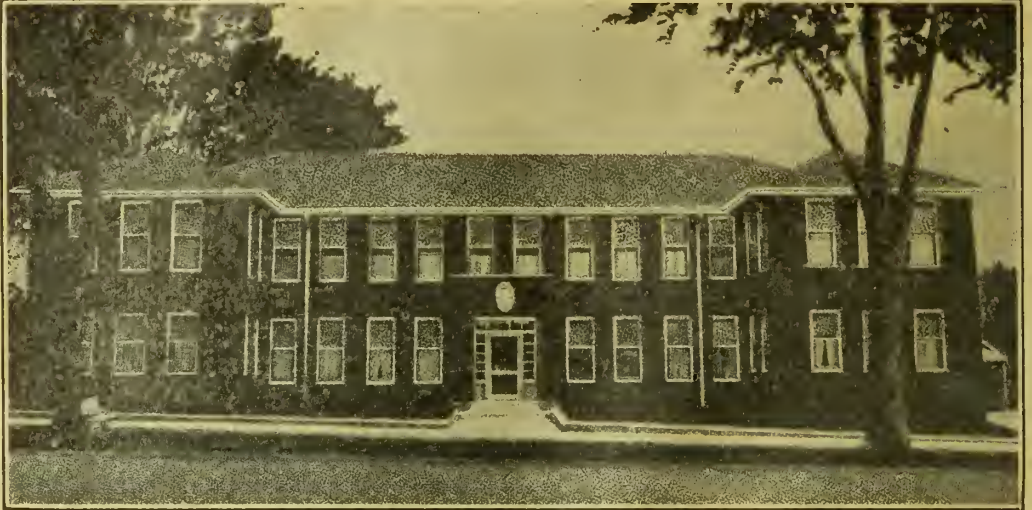
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